

**United States Circuit Court of Appeals**  
**FOR THE NINTH CIRCUIT.**

**J. M. K. LETSON, et al.,**  
Appellants,

vs.

**ALASKA PACKERS ASSOCIATION,**  
Appellee,

AND

**ALASKA PACKERS ASSOCIATION,**  
Appellant,

vs.

**J. M. K. LETSON, et al,**  
Appellees.

No. 944.  
(May Term, 1903.)

**Brief for Appellee, Alaska Packers Association.**

**JOHN H. MILLER,**  
**DORR & HADLEY,**  
Counsel for Appellee.



IN THE  
United States Circuit Court of Appeals  
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**Opening Brief of Alaska Packers  
Association.**

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STATEMENT OF FACTS.

These are cross-appeals from a decree of the Circuit Court of the United States for the District of Washington.

The suit is in equity in the usual form, brought by the Alaska Packers Association, of San Francisco, against the firm of Letson & Burpee, of Fair Haven, for infringement of letters patent No. 376,804, dated January 24, 1888, for an improvement in can-capping machines, issued to Matthias Jensen.

There are sixteen claims in the patent; but only claims 1, 3, 5, 9, 10 and 11 were charged to be infringed. Of these the lower court found infringement of claims 5, 9, and 10, and non-infringement of claims 1, 3, and 11. Both parties have appealed, the complainant from that part of the decree adjudging non-infringement of claims 1, 3, and 11, and the defendants from that part adjudging infringement of claims 5, 9, and 10.

The decision of the lower court, rendered by Judge Hanford, is reported in 119 Fed. Rep., 599. The opinion appears in the record at page 434 *et seq.* We shall discuss both appeals in this one brief, and shall refer generally to the Alaska Packers Association as appellee and to Letson & Burpee as appellants.

#### THE INVENTOR.

The inventor and patentee is Matthias Jensen, of Astoria, Oregon, who has acquired no little celebrity in

can-making machinery, and whose name is already familiar to the court. He invented and secured patents for a complete system of automatic can-making machinery, including body-formers, solderers, fillers, crimpers, cappers, etc. One of the most celebrated of those machines is the Jensen can-filling machine now used all over the Pacific Coast and deemed indispensable to every well regulated cannery, the patent on which has expired.

After securing these patents, Jensen manufactured the devices covered thereby and put them into use. They proved to be machines of unusual merit, and extensive sales of them were made. He afterwards sold all of these patents to the Alaska Packers Association, the appellee herein, which company has used and is now using them in its salmon-canning business throughout Alaska and on Puget Sound. Its principal canneries on the Sound are at Blaine, Port Roberts, and Anacortes. In Alaska it operates canneries at Pyramid Harbor, Prince William Sound, Cook's Inlet, Karluk, Alitak, Chignik, Ugashak, Egigak, Naknek, Koggung and Nushagak. At all of these canneries the Jensen can-making machinery is used, and ninety-five of the patented can-toppers are in use in those canneries (Rec., 56).

The appellants Letson & Burpee are a manufacturing firm located at Fair Haven in Washington, engaged in the manufacture and sale of can-making machinery. They also have a factory at Vancouver in British Columbia, where they originally began the business. Having met with success there, they invaded the United States and established a factory at Fair Haven.

On July 25, 1899, *eleven years after the issue of the Jensen patent in suit*, a patent was issued to Letson & Burpee for a can-capping machine, being No. 629,574, and it is charged by the appellee that the machines made under this Letson & Burpee patent are an infringement upon the Jensen patent.

#### PRIOR LITIGATION.

An account of the prior litigation affecting the Jensen patents will prove interesting, and may possibly aid the court in construing the Jensen patent.

In 1891 the Norton Brothers brought suit against Jensen in the United States circuit court at Portland, claiming that the Jensen can-capping machine, constructed according to the patent here in suit, was an infringement upon the following patents owned by Norton Brothers: No. 267,014 of Nov. 7, 1882, to Edwin

Norton; No. 274,363 of March 20, 1883, to Norton & Hodgson; No. 294,065 of Feb. 26, 1884, to Norton & Hodgson; No. 307,197 of Oct. 28, 1884, to Edmund Jordan; No. 307,491 of Nov. 4, 1884, to Norton & Hodgson; No. 322,060 of July 14, 1885, to Edmund Jordan.

The case was tried before Judge Sawyer and resulted in a decree for Norton Brothers, holding that the Jensen machine was an infringement upon all of said patents.

Upon appeal taken from that decree, this court (Hanford, Hawley and Morrow, JJ., sitting) held that the Jensen machine was no infringement upon two of the specified patents, viz: No. 307,197 to Edmund Jordan and No. 307,491 to Norton & Hodgson, but was an infringement upon the Norton primary patent, No. 267,014, and the patents subsidiary thereto and improvements thereon.

This result was worked out by holding that the Norton patent, 267,014, covered an invention of a pioneer character, as shown by the record in the case. This ruling, however, was afterwards reversed in another case on the same patent, where a fuller showing of the state of the art was made, which case we shall refer to later.

The decision in this first case is reported in 49 Fed-

eral Reporter, at page 860, *et seq.* In the majority opinion, written by Judge Hanford, it is said *inter alia*:

“ We are of the opinion, however, that for some  
 “ kinds of work the machine contrived by the appellant  
 “ Jensen, *is an improvement upon any machines pre-*  
 “ *viously constructed, and a very useful machine;* and  
 “ that it is not an infringement of any rights of the ap-  
 “ pellees under the patent issued to Edmund Jordan,  
 “ No. 307,197, or the Norton & Hodgson patent, 307,-  
 “ 491. \* \* \* We hold that the Jordan ‘Can-End-  
 “ ing Machine,’ Patent No. 307,197, by reason of being  
 ‘ cumbersome and slow, in its operation, is not a prac-  
 “ ticable machine for putting heads on tin cans of the  
 “ size required for use in putting up fruits, vegetables,  
 “ meats, fish, and similar materials for individual and  
 “ family use; and, therefore, it cannot be infringed  
 “ by the use of a *different machine which will do such*  
 “ *work well at a reasonable cost.* \* \* \* It is ob-  
 “ vious that to move and operate upon well-filled cans,  
 “ especially of liquid or semi-liquid substances, the  
 “ cans must be in true vertical positions, and the move-  
 “ ment must be so free from jarring or concussion as  
 “ not to disturb the contents; whereas, one of the es-  
 “ sentials of the (Norton & Hodgson) ‘Can-Ending  
 “ Machine’ is a carrier or feeding chute so constructed  
 “ as to bring the cans into such a position that by force  
 “ of gravity they will drop into the half molds upon the  
 “ periphery of the intermittently revolving belt. The  
 “ machine will not operate upon filled cans in an up-  
 “ right position without some additional device or sub-  
 “ stitute for gravity to force the cans into the revolving  
 “ half molds, for the clamp or mold has no attraction



“ for the cans or means for feeding them without the aid  
 “ of an extraneous force. The contrivance of setting  
 “ the can-ending machine in an inclined position and  
 “ the adjustment of the feed and discharge chutes to  
 “ work with it in that position can scarcely be consid-  
 “ ered to involve the exercise of inventive genius, or any-  
 “ thing more than mechanical skill; and being at best  
 “ but partially successful in the accomplishment of its  
 “ object, we cannot, under the law, as we understand it,  
 “ hold that any right of the patentee has been infringed  
 “ by the *Jensen machine, which the evidence shows to*  
 “ *be in its operation upon filled cans a complete success.*  
 “ The patent laws were not designed for the benefit of  
 “ the man who *attempts* to originate a useful thing, but  
 “ rather to reward the one who first *achieves success* in  
 “ the production of it. It would be a perversion of the  
 “ law to hold a machine which can do certain kinds of  
 “ work to be an infringement of a patent for a different  
 “ machine, which cannot do the same work.”

[Note.—The italics are ours.]

We understand the effect of the above-quoted decision to be a holding that the Jensen patent, here in suit, is good and valid. It is true that the Jensen patent was not sued on in that case, and for that reason the decision may, perhaps, not be a technical adjudication of validity. In that case, the Jensen patent was the one charged to be an infringement; but in determining that question, the Court of Appeals inquired into the novelty and utility of the Jensen invention and held that the

Jensen invention was one of very great merit, and thereby inferentially held, as we construe the decision, that the Jensen patent was good and valid. Whether or not we are right in this contention can be easily determined, inasmuch as this court undoubtedly knows what was intended to be held therein.

Shortly thereafter the Norton Brothers brought a second suit against Jensen, claiming that his original can-capping machine was an infringement upon Patent No. 214,292 of April 15, 1879, granted to William J. Gordan and assigned to and owned by the Norton Brothers. The lower court held that there was an infringement, and entered a decree in favor of the complainant. Upon appeal taken, this court held that there was no infringement and reversed the decree. The opinion was written by Judge Hanford, and is reported in 64 Fed. Rep., at page 600 *et seq.*

After the decision by this court in the original Jensen case, Mr. Jensen devised a new can-capping machine, differing materially in many respects from his original invention, and applied for and secured Patent No. 443,445 of December 23, 1890, covering the new invention. Thereupon the Norton Brothers brought suit against Jensen in the circuit court at Portland, claiming that this new Jensen machine was likewise an

infringement upon the Norton primary patent No. 267,014 and the Norton improvement patents thereon. A motion for a preliminary injunction was made and granted, from which Jensen prosecuted an appeal to this court. The decision was affirmed, on the ground that the appeal, being from an order granting preliminary injunction, the prior decision in *Jensen vs. Norton*, 49 Federal Reporter, was controlling. This decision is reported in 64 Fed. Rep., at page 62 *et seq.*, and the opinion was written by Judge Hanford. In that decision, we find the following:

“We recognize in the defendant’s new machine for  
“bringing together the cylinders and heads or end  
“pieces of tin cans and crimping the flanges with ac-  
“curacy and rapidity, a useful improvement. Never-  
“theless, we must disappoint his hopes at this time, for,  
“until a complete determination of the controversy by  
“the circuit court, this court cannot, consistently with  
“good practice, pass judgment upon the main question.  
“This machine does all the work of the previously pat-  
“ented invention. That is a conceded fact. We must  
“also concede the uncontradicted averments of the  
“bill and the affidavits to the effect that said machine  
“embodies all the elements in the combination claimed  
“by the complainants and protected by their patent,  
“and that it does infringe said patent. Without al-  
“legations or testimony on the part of the defendant,  
“we have no right to decide that, as a matter of law, the  
“use of a new machine which operates so as to produce

“ the same result as previously patented inventions is  
 “ not an invasion of the rights granted by the patent,  
 “ unless it appears to us to be so obvious that infringe-  
 “ ments have been avoided that intelligent persons can-  
 “ not honestly differ in their opinions upon that sub-  
 “ ject. \* \* \* Manifestly, therefore, the court can-  
 “ not, upon a mere application for a preliminary in-  
 “ junction, decide the disputed question affecting the  
 “ merits of the main controversy. \* \* \* In view  
 “ of the admitted facts and the uncontradicted evi-  
 “ dence, the defendant’s contention appears to us to be  
 “ unreasonable. Duty does not require this court, in  
 “ advance of a final hearing in the circuit court, to take  
 “ up the challenge of counsel to prove by a comparison  
 “ of the rival machines in detail and a complete analy-  
 “ sis that they are substantially identical. We leave the  
 “ circuit court free to decide the case in the first in-  
 “ stance untrammelled by any expression of opinion by  
 “ this court upon the merits.”

Thereupon the case was remanded to the circuit court at Portland, and later on we shall detail its subsequent history. At present we are following the chronological order of the litigation.

About the same time as the above, the Norton Brothers brought suit in the circuit court at San Francisco against Milton A. Wheaton, claiming that a can-capping machine, made by Mr. Wheaton, was an infringement upon the Norton primary patent No. 267,014.

The case was tried before Judge McKenna in the

circuit court, who followed the decision of the court of appeals in the original Jensen case, and held that the Wheaton machine was an infringement of the Norton patent. An appeal was taken to the circuit court of appeals, and the decision upon that appeal is reported in 70 Federal Reporter at page 833 *et seq.* The decision was written by Judge Ross.

In this Wheaton case a full and complete showing of the state of the art was made, which had not been made in the original Jensen case, and upon such showing this court held that the Norton patent, No. 267,014, which, in the Jensen case had been held to be of a pioneer character, was not of a pioneer character and did not cover a primary invention, but merely an improvement over prior devices. This changed the whole phase of the controversy, and this court reversed the decree in the Wheaton case, holding that there was no infringement, and ordered the suit dismissed.

The decision in this Wheaton case virtually overrules the decision in the original Jensen case, reported in 49 Federal Reporter; for it is apparent, that if the evidence as to the state of the art, which was offered in the Wheaton case, had been introduced in the original Jensen case, then the same ruling would have been made in the original Jensen case that was made in the Wheat-

on case. Anyway the Wheaton case establishes the present *status* of the Norton patent and is now the law of this circuit, and the decision in the original Jensen case is no longer the law on that subject.

After the decision in the Wheaton case, a trial was had at Portland, before Judge Bellinger, of the second Jensen case hereinabove referred to, wherein it was claimed by the Norton Brothers that Jensen's second or improved can-capping machine was an infringement of the Norton patent. Judge Bellinger followed the decision in *Norton vs. Wheaton*, and held that there was no infringement, and that decision was affirmed on appeal, in an opinion written by Judge Morrow. (See *Norton vs. Jensen*, 90 Fed. Rep., 415.)

In addition to the foregoing litigation suit was brought by the Norton Brothers against Jensen in the circuit court at Portland, claiming that the can-body forming and soldering machines of Jensen were infringements upon various and sundry patents owned by Norton Brothers. A decree was rendered in favor of complainant in that case by the circuit court; but on appeal the decree was reversed and the bill was dismissed on the ground of non-infringement. This case was *Jensen vs. Norton*, 67 Fed. Rep., 236 *et seq.* The opinion was written by Judge Hanford. It does not particularly affect the present litigation regarding the

can-capping machine, inasmuch as it involved the can-body making and soldering machines, but we refer to it merely for the purpose of giving a complete history of the prior litigation.

From the foregoing, it will be seen that after a decade of litigation the Jensen patents for capping, crimping, body-forming, and soldering stand unchallenged as to validity, and are not infringements upon the rights of other inventors. It is not often that a bunch of patents acquires such a favorable standing before the courts prior to any suit brought directly on them for infringement, and this fact attests the great worth of the Jensen patents.

We now pass to another subject.

#### GENERAL SCOPE OF THE JENSEN INVENTION.

The Jensen patent contains sixteen claims, but we charge infringement of only claims 1, 3, 5, 9, 10, and 11. The validity of these claims is not assailed by the defendants. The sole defense made is non-infringement.

A portion of the machine relates to a crimping mechanism, and six of the sixteen claims are intended to cover such a device. The defendant's machine does not contain any crimping mechanism, leaving that operation to be performed by a separate independent machine. Consequently, all that portion of Jensen's ma-

chine relating to the crimper may be dismissed from consideration.

The primary object of the Jensen machine is to put caps on cans *already filled*, and more particularly upon cans filled with fish. The specification says: "This apparatus is especially intended to receive cans which have been filled with fish or other material."

Prior to the Jensen invention machines for placing caps on cans were almost numberless, but they were all intended to operate only upon *unfilled* cans. In the operation of canning perishable products the cans were first filled and then the caps were placed on *by hand*, requiring skilled labor therefor. In the salmon canning industry this capping of the cans by hand was a particularly difficult operation. Unless it was done accurately and nicely, many cans were spoiled, and, consequently, skilled labor was necessary; and being done by hand, the operation was necessarily slow. And furthermore, the hands of the workmen were liable to become lacerated and cut by the sharp tin, and the liquid contents of the cans entering these cuts and lacerations, caused the hands of the workmen to become sore and chapped, so that it was not an unfrequent occurrence in the old operation that the workmen would be disabled by reason of sore hands and compelled to quit



work. Besides this, in the hand operation the constant and delicate manipulation of the fingers caused them to tire quickly, and the workmen would have to stop to rest. This was a constant source of annoyance. It is obvious at a glance that a machine, which would automatically place the caps on these filled cans would be a very useful thing in the canning industry.

*Now, as stated above, prior to the Jensen invention there was no automatic machine known or in existence which would successfully place caps on filled cans. Mr. Jensen was absolutely the first in the art to devise a machine for performing that operation, and the fact that the machine in question did and does successfully perform that operation is beyond all peradventure of a doubt.*

Mr. Bradford, who has had an experience of twenty-seven years in the business, testified that the Jensen machine was the first one in the art which successfully headed filled cans, and that the operation of heading filled cans had formerly all been done by hand. (Dep. Bradford, Rec., p. 55.)

F. A. Robbins, who has perhaps had more experience in building can machinery than any other person on the Pacific Coast, testified to the same effect, saying: "Up to that time (three years ago) it really was the

“only successful can-topping machine in existence; “that is, for heading filled cans.” (Dep. of Robbins, Rec., p. 62.)

Wm. Munn, superintendent of the complainant's canneries and a practical can-making machinist, was equally emphatic. His testimony is particularly valuable because he assisted Jensen in getting up the machine and building and operating the first ones constructed. He is probably more familiar with the machine than any other person, except Jensen himself. He testified that prior to this invention filled cans had always been capped by hand; that experts were required therefor, and it was difficult to get them because they had to be taken from San Francisco to Alaska; that one of these experts could cap only about 12 cans per minute, whereas one Jensen machine could cap 90, and sometimes as many as 100; furthermore, that by the hand operation, the caps could not be put on so tight as by the machine, a fact which is quite evident. He further testified that it was a very valuable machine and that “they are used in every cannery in Alaska “where they can get them.” (Dep. of Munn, Rec. 269-275.)

Defendant Burpee likewise testified to substantially the same effect. He said he had known of the Jensen

machine since the litigation with Norton and he knew of no automatic machine for heading filled cans in practical use prior to the Jensen header. (Dep. of Burpee, Rec., X. Q., 296, p. 496.)

He likewise testified that several machines had been invented and patented for capping filled cans since the date of the Jensen patent and within the last few years. As a matter of fact, these subsequent machines have all been invented within the last three years, as is apparent from the testimony of Mr. Robbins, who states that until within the last three years the Jensen machine was the only successful one in existence for capping filled cans. (Dep. of Robbins, Rec. q. 24, p. 62.) Under these circumstances, we have a case where the patent sued on is the first of its kind in the art, where it immediately went into general and extensive use, and after ten years of successful use imitators brought out so-called improvements thereon, which we contend are infringements thereof.

At the oral argument in the lower court, it was admitted by counsel for defendants that the Jensen machine is of a pioneer character, standing at the head of the art, for capping filled cans, and that prior thereto no automatic machine for that purpose was known or in use.

In this connection we may also refer to the fact that in the original Norton-Jensen case, reported in Vol. 49 of the Federal Reporter, the learned counsel for defendants herein (Mr. Wheaton) was the attorney for Mr. Jensen, and he there argued most successfully in behalf of the merits of the Jensen machine. Referring to his argument in that behalf this court said:

“Appellant contends that Jensen’s invention was brought about by the necessities of the salmon canning industry; that his machine is especially adapted to putting the final heads on cans filled with fish or other substances; *that it is the only machine for heading cans that can practically be used for this purpose.*”

The gentleman was clearly right in the foregoing statements. The Jensen invention *was* brought about by the necessities of the salmon canning industry and *was* at the time stated the *only* machine for heading filled cans that could practically be used for that purpose. It marked the beginning of the art.

Under these circumstances the court will look with favor upon this highly useful invention and will give it a broad and liberal construction as one standing at the very head of the art, which successfully accomplishes a useful result never accomplished before.

The law governing such cases is too well known to

the court to require a lengthy citation of authorities. It is sufficient to refer to a limited number.

As early as 1857 Mr. Justice Grier, in the case of *McCormick vs. Talcott*, 20 How., 402, speaking for the supreme court, said:

“The original inventor of a device or machine will have a right to treat as infringements all who make machines operating on the same principles and performing the same functions by analogous means or equivalent combinations, even though the infringing machine may be an improvement of the original and patentable as such.”

Later on Mr. Justice Bradley, speaking for the court in *Railway Co. vs. Sayles*, 97 U. S., 554, said:

“Where an inventor precedes all others in a particular department and invents a new machine never used before and procures a patent for the same, he acquires a monopoly as against all merely formal variations thereof.”

And finally, in the case of *Morley Machine Co. vs. Lancaster*, 129 U. S., 273, Mr. Justice Blatchford, speaking for the same court, said:

“Where an invention is one of a primary character and the mechanical functions performed by the machine are as a whole entirely new, all subsequent machines which employ the same means to accomplish the same result are infringements, although the sub-

“sequent machine may contain improvements in the  
“separate mechanisms which go to make up the ma-  
“chine.”

Later on we shall refer to these cases more in detail, but at this stage of the brief it is sufficient merely to refer to them generally.

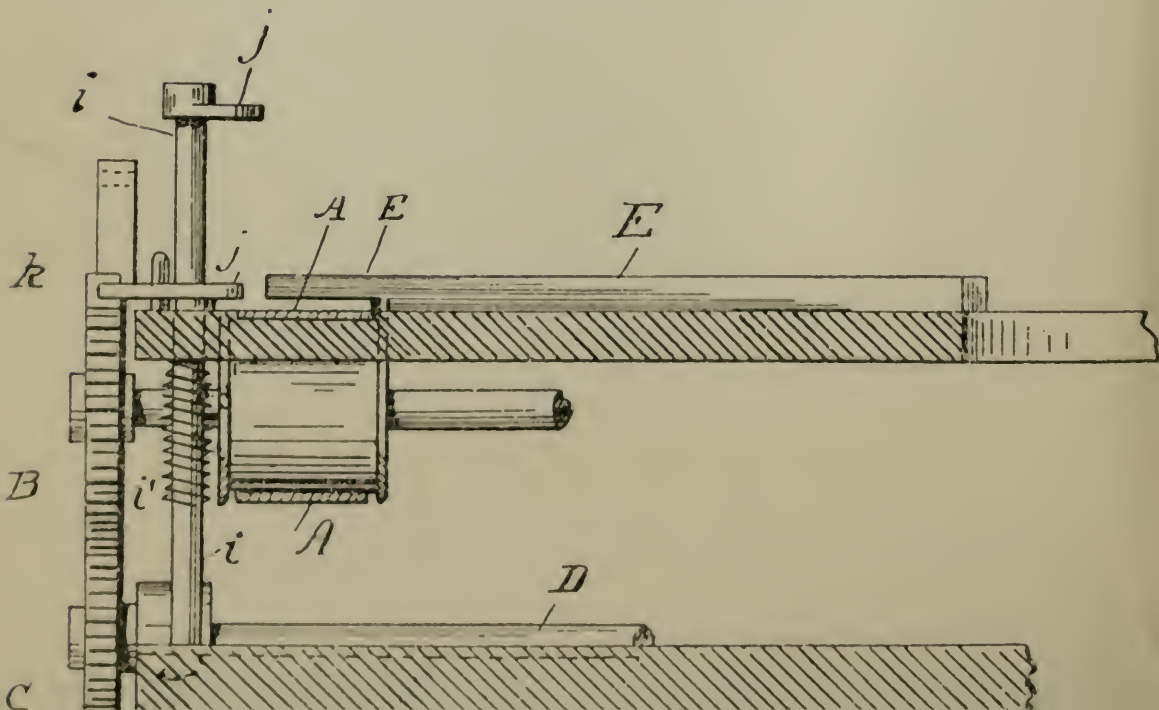
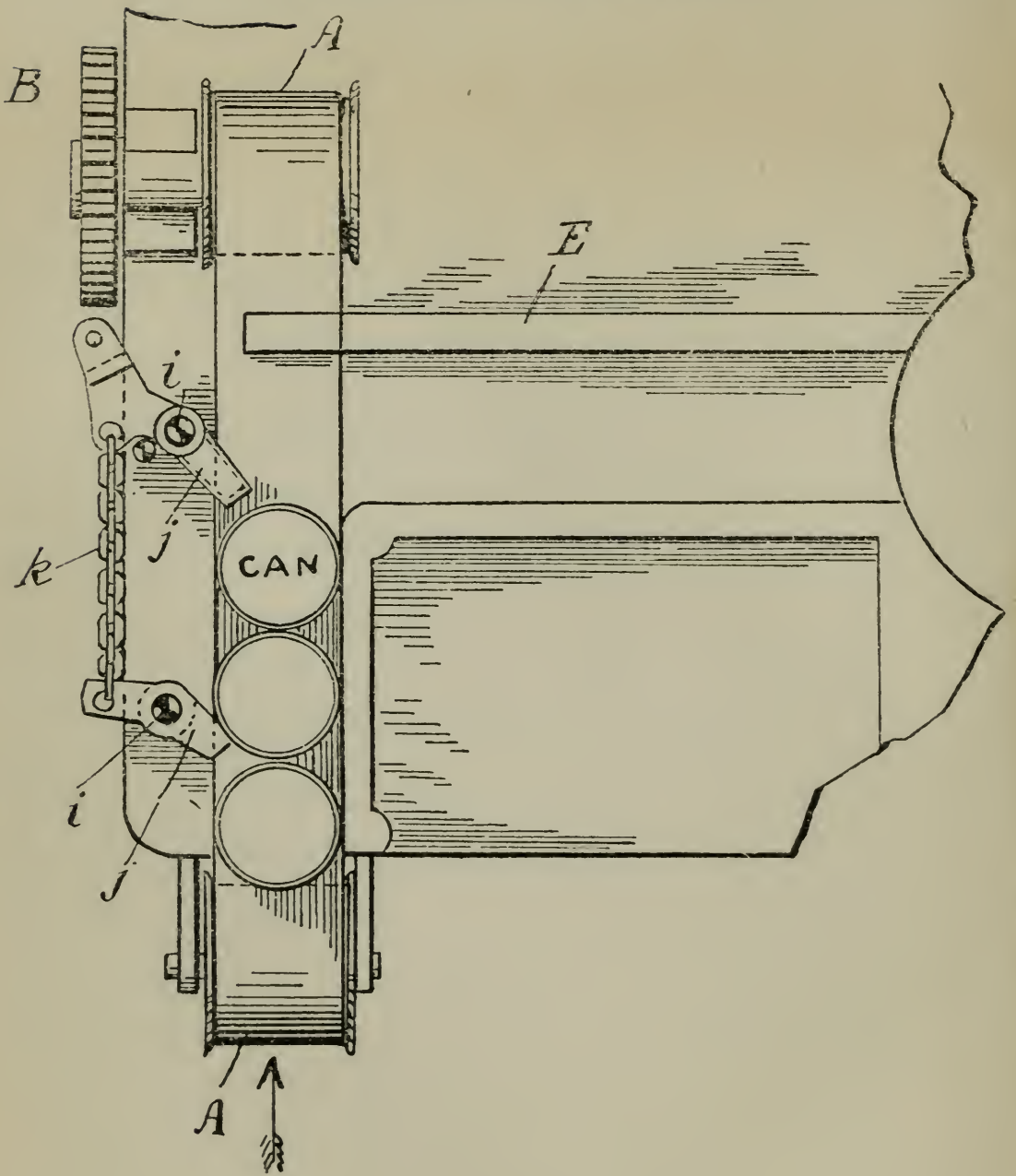
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#### DESCRIPTION OF THE JENSEN MACHINE.

The machine disclosed in the patent is most ingenious in construction and reflects great credit upon the inventive skill of its designer. At first glance it appears quite complicated in its mechanism; but when carefully analyzed, it will be found to be comparatively simple, embodying easy and graceful movements and working with the precision of clock-work. Fundamentally it consists of the following elements:

1. *An endless can-feeding belt for feeding the cans to the machine.*
2. *Arms swinging over the belt to render the delivery of the cans from the belt to the feeder exact.*
3. *A stop extending transversely across the belt to arrest the forward movement of the cans and change their direction.*







4. *A feeder, which by a circular sweeping motion transfers the cans from the belt to the capping mechanism.*

5. *A cap-feeding device consisting of an inclined chute and connecting mechanism for supplying the caps one by one.*

6. *A mechanism whereby each can releases its own cap, consisting of a stop in the path of the caps, a trigger in the path of the cans, and a connecting mechanism between the stop and the trigger, so arranged that the can pulls the trigger and thereby releases the cap.*

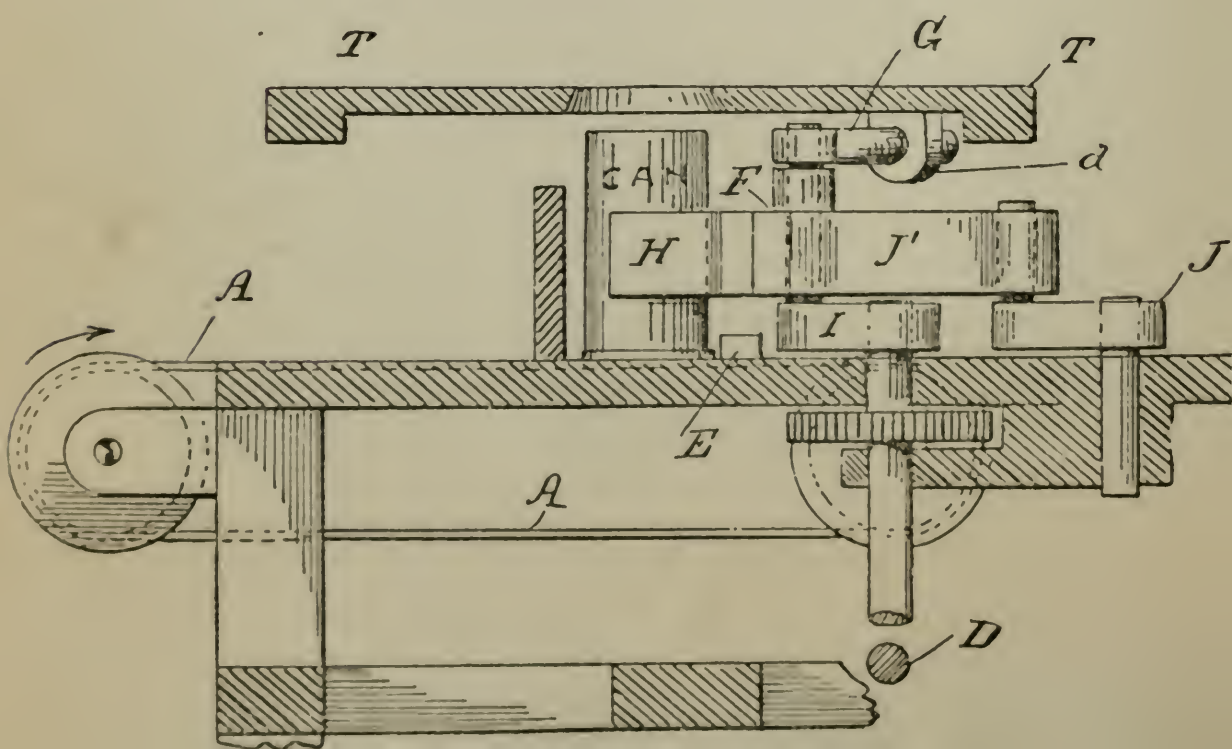
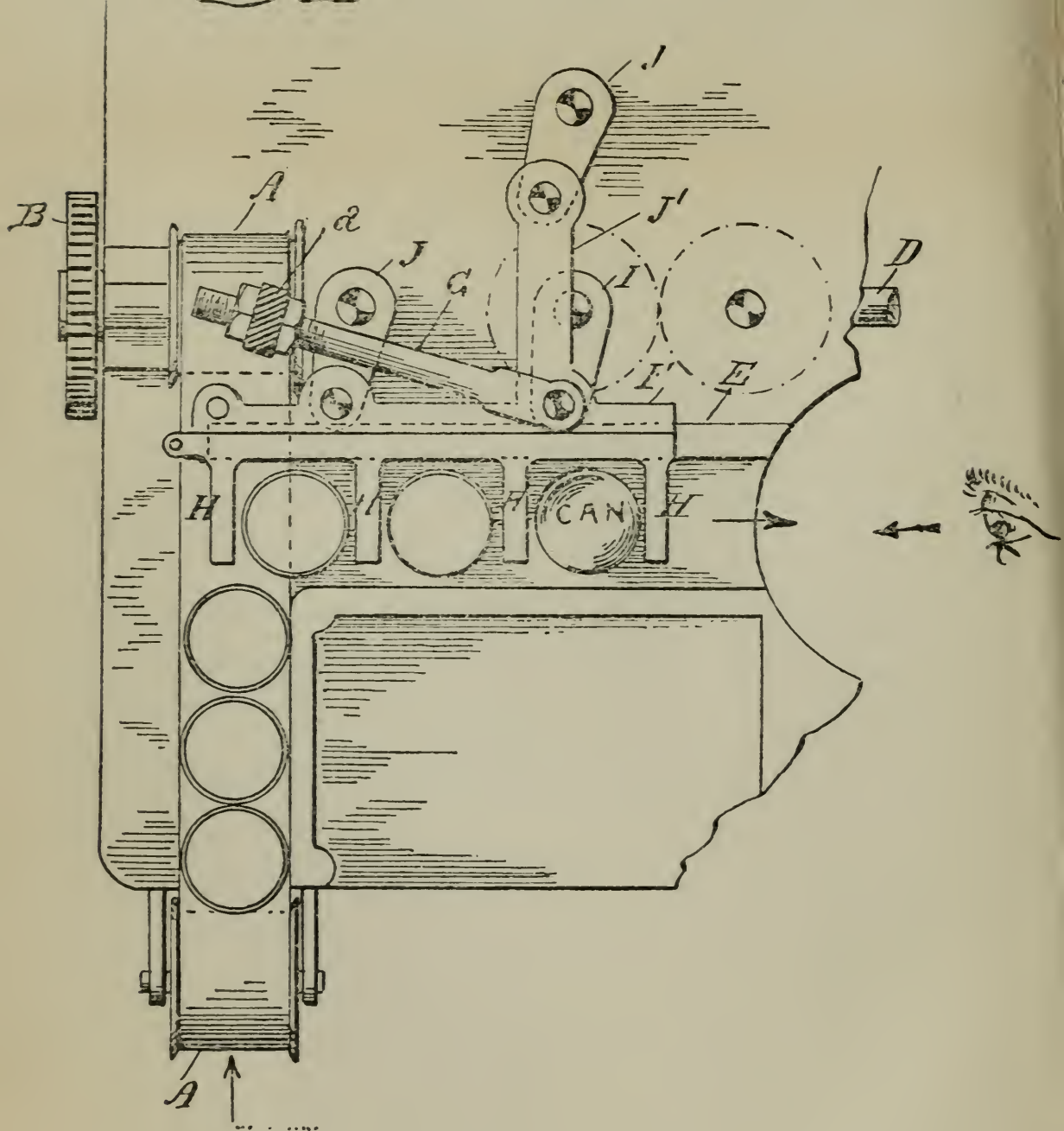
7. *A capping mechanism, consisting of two oppositely disposed vertically reciprocating plungers, a conical guide for sizing the upper end of the can-body, and transversely moving cap-holding slides.*

In addition to the above elements, there is a crimping mechanism for crimping the caps on the cans; but, as this element is not found in the defendant's machine, we dismiss it from further consideration.

For greater perspicuity we will take up these elements *seriatim* and illustrate them by drawings. In the cut on the adjoining page, marked "Cut I, Jensen's Can-feeding Mechanism," the endless traveling belt is designated by the letter A. It is called in the patent a

“feed belt,” and the filled cans are placed upon that belt by hand in a vertical position with their open ends upwards. The belt passes around drums or rollers at each end in the usual manner of such belts. The drum at the inner end is mounted upon a shaft, having a gear wheel B on its outer end, which engages with a pinion on the main driving shaft, thereby imparting motion to the belt, though any other appropriate mechanism may be used for that purpose. The devices marked “jj” are used as spacing devices for the cans. They are described in the patent as arms projecting above the belt to control the movement of the cans, and only allow them to move forward so as to arrive at the feeder in the proper time to be received by it and carried forward. These arms are connected together by the chain “k,” or any other flexible connection, and have an intermittent motion back and forth longitudinally of the belt. They are also similarly connected to the feeder, not shown in this cut. The letter “E” in the drawing designates the transverse stop, which, in this instance, consists of a stationary bar, and which arrests at that point further forward progress of the can and changes its direction. By the above described mechanism the cans are carried one by one to the point on the belt where their forward motion is arrested by the stop “E,”



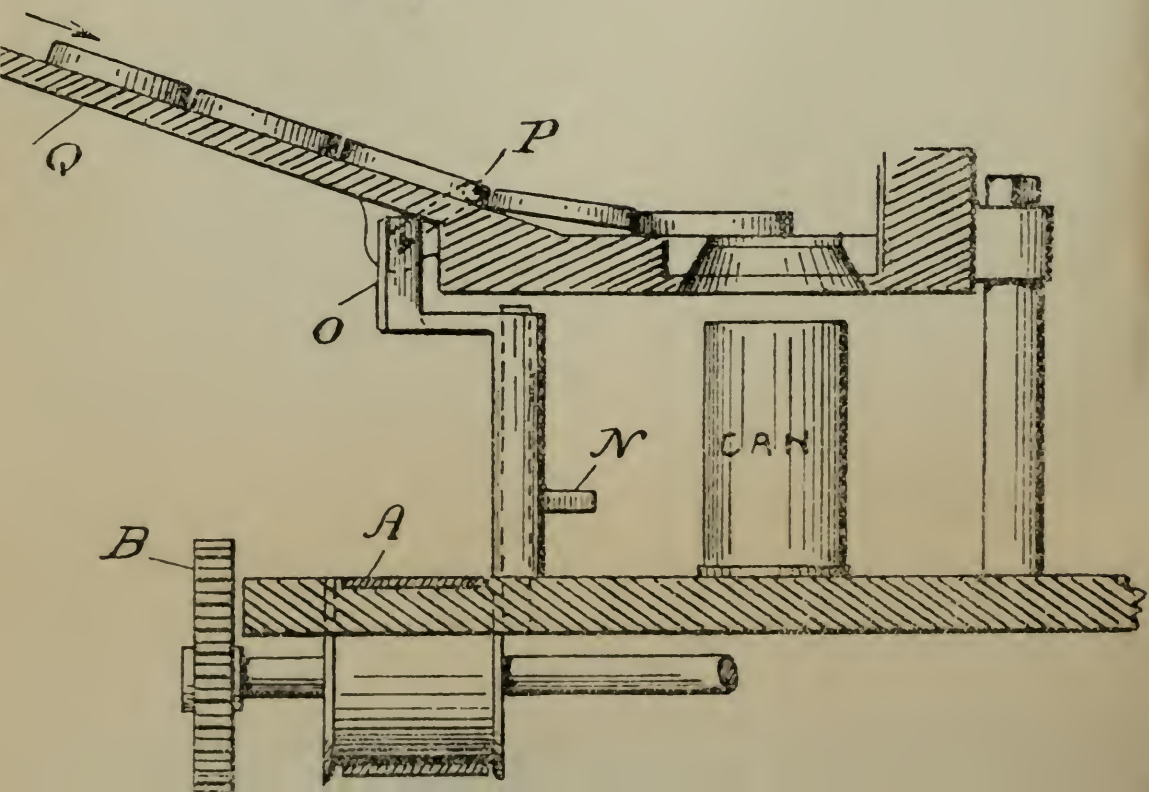
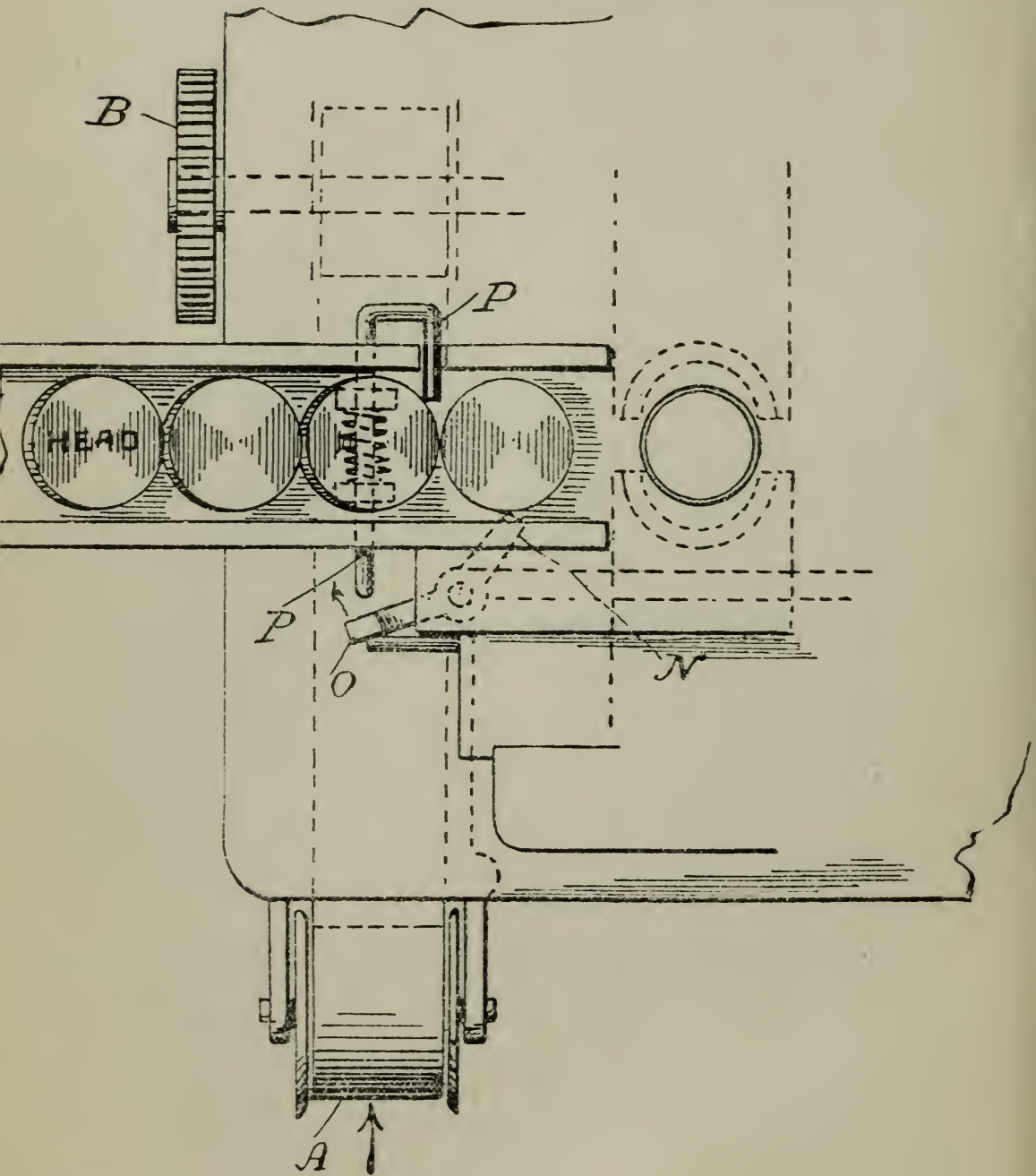


the arms "jj" reciprocating back and forth longitudinally of the belt for that purpose to insure accurate delivery of the cans, one by one, and to prevent crowding, or delivery at the wrong time.

The next element in the machine consists of the feeder, which device receives the can at the point where forward motion is stopped, and transfers it from the belt to the capping mechanism. The cut on adjoining page marked "Cut II, Jensen's Feeder," illustrates the device. This feeder is designated in the drawing by the letter F. It consists substantially of a transverse bar with four arms attached thereto at right angles, and marked in the drawing by the letter H. These arms are spaced equally so as to provide three pockets or receptacles into which the can fits. The actuating mechanism of this feeder consists of three cranks, lettered JJJ, to which motion is imparted from the main driving shaft, producing "a circular sweeping motion of the feeder." The can is first delivered between the first two arms of the feeder, and by them swept off of the belt by a circular sweeping motion, and left in a certain position on the table. The feeder then swings back for another can, leaving the first can stationary momentarily upon the table, and by the next movement of the feeder, the first can is grasped between the second two arms and carried a step further, and placed upon

the lower plunger beneath the capping mechanism, where the cap is applied by a mechanism to be hereafter described.

The next drawing, reproduced on the adjoining page and marked "Cut III, Jensen's Cap-Feeding Mechanism," shows the further mechanism of the machine, consisting of the apparatus for feeding the caps. The caps are fed to the machine, one by one, from an inclined chute, designated by the letter Q. At the bottom of the chute is mounted a spring arm P, the upper end of which is curved and extends into or above the cap chute, and thus normally stops the caps and prevents them being moved any further down the chute until the proper time arrives for releasing them. The letter N designates a trigger-arm, placed directly within the line of travel of the moving cans, so arranged that each can will strike against it. This trigger has attached to it another arm O, projecting upwardly, so as to press against the spring arm P, as shown by the arrow in the plan view. When the can presses against the trigger N, the arm O in turn presses against the spring-arm P, and thereby moves its curved opposite end from the path of the caps and allows a cap to pass down the chute towards the capping mechanism. As soon as this cap passes down, the spring in the spring-arm P causes said







arm to resume its normal position and thereby prevents the other caps in the chute from passing down the same. By the operation of this mechanism, it will be seen that a cap is released by the operation of the can striking against the trigger N, *so that each can-body releases its own cap*. This particular feature of the machine, whereby each can is caused to release its own cap from the chute, is absolutely novel with Mr. Jensen. Prior to his invention there was no such device, nor anything resembling it in the remotest way in existence. One of the claims of the patent covers this invention broadly as a pioneer invention.

After a cap has been thus released from the chute, a further mechanism is provided which acts positively to grasp the cap and carry it to the capping mechanism. This device, however, is not material to the point now under investigation, and therefore, we have omitted it from the drawing. Our desire is to illustrate only the necessary parts which go to make up the claim, and this we do for purposes of perspicuity.

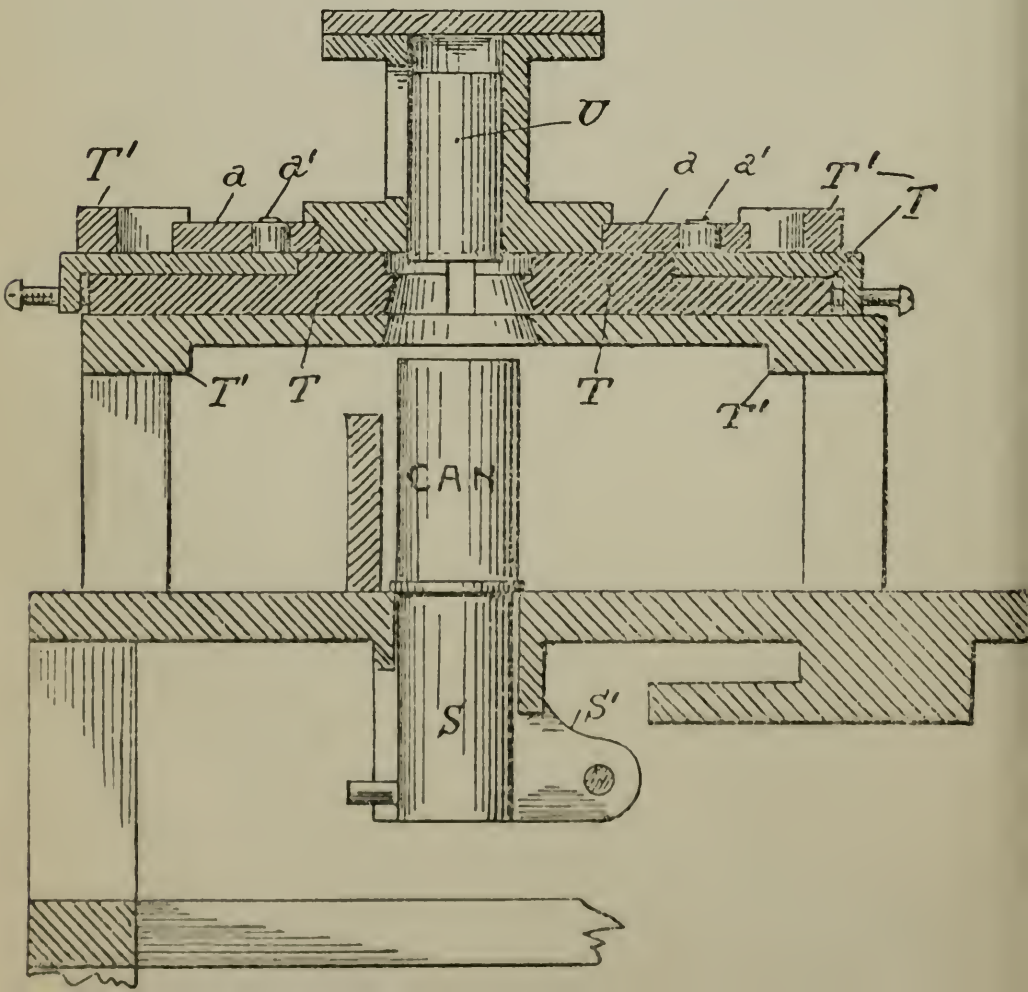
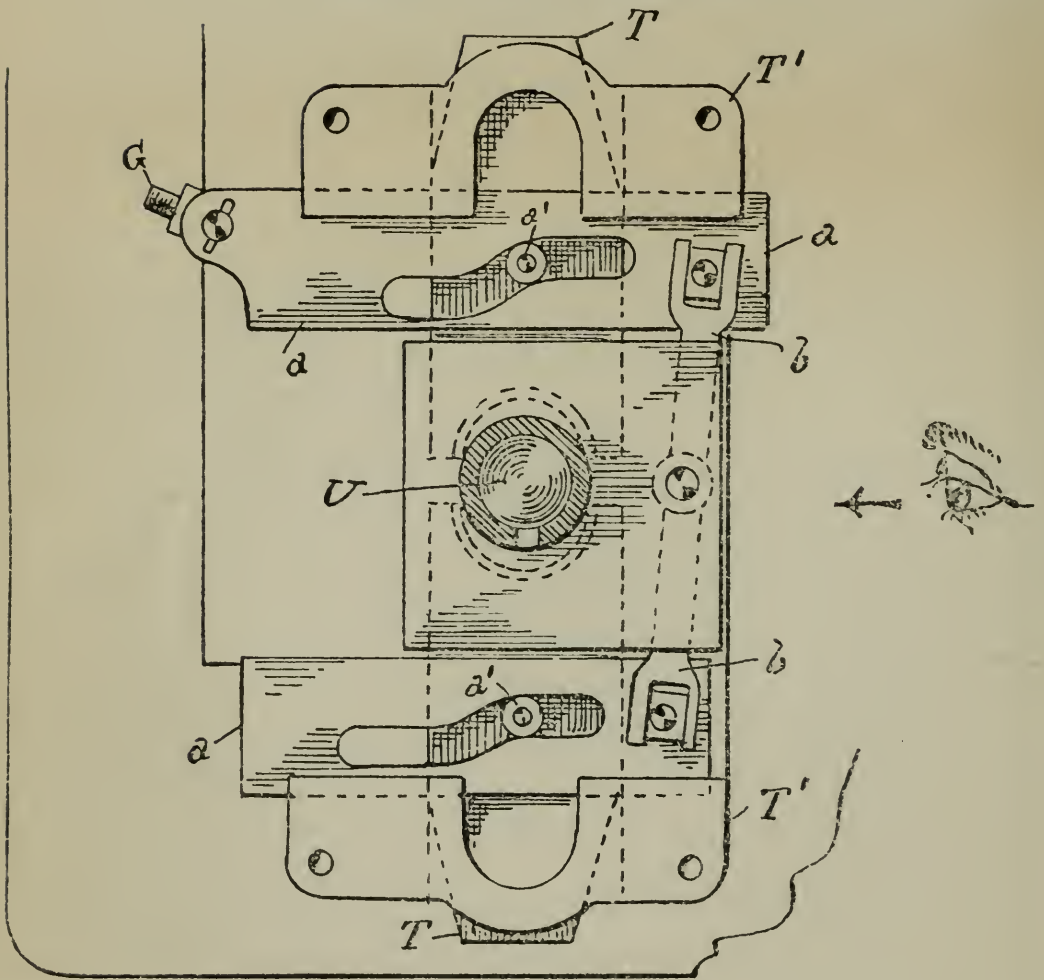
It remains only to describe the capping mechanism. This consists of a lower plunger upon which the can is delivered from the feeder, a conical guide within which the upper end of the can is forced, two slides adapted to move towards each other transversely, and

having their ends shaped in a semi-circle, so that when they come together they form a complete circular space. An annular rim, or shoulder, is cut in the face of these semi-circular slides, so that when they are brought together a seat is formed upon which the can cap rests. An upper plunger is located immediately above this circular space. When the can is placed upon the lower plunger, this plunger rises upward by appropriate mechanism and pushes the upper end of the can through the conical guide, which serves to size or round up the upper end of the can-body, also to bring the can in line with the cap and to compress the fish or other material which may project slightly above the top of the can, so that it will be properly inclosed and forced into place when the cap is put on. In this way the upper end of the can-body is forced upward into the can-head. Then the upper plunger descends upon the top of the capped can, while the semi-circular slides recede and allow the capped can to pass through the conical guide and descend to its position on the table, being followed down by the upper plunger. When the capped can reaches its initial position on the table, it is grasped between the last two arms of the feeder and transferred to the crimping mechanism.

For a clearer understanding of the construction of the capping mechanism, we refer to the drawing on



FIG. IV.  
Jensen's Capping Mechanism.



adjoining page, marked "Cut IV, Jensen's Capping Mechanism." In that drawing the lower plunger is marked S, and a can is represented as having been placed thereon. Immediately above the top of the can will be seen the conical guide consisting of two parts, marked T'T', which is nothing more than a conical hole in the table. Immediately above this conical hole are the transversely moving slides TT. They are so arranged that, as they move together, they form a circular hole immediately over the conical guide, with a ledge or rim cut on the inside of the circle upon which the can cap rests. This annular rim is of the thickness of the tin forming the can, and while the cap rests on this rim as a seat, it is prevented from falling through the conical hole beneath, thereby enabling the upper end of the can to be inserted into the cap. This annular rim or space is the famous old "annular space," which formed the subject of controversy in the Norton cases.

The upper plunger is designated by the letter U. After the upper end of the can has entered the cap, the transversely moving slides are withdrawn, thereby allowing the capped cans to pass downward through the conical guide, and the upper plunger U, resting on the top of the capped can, follows it downward and steadies

it in its downward passage. This upper plunger also acts as a back-plate, or resisting surface, when the can-body is forced into the cap.

We have not shown on this drawing the details of mechanism which operate the plunger, as that is not material for our purpose. No claim is made to any invention in the form of those operating mechanisms, the claims calling generally for "operating mechanisms" in that regard.

We have now described the basic elements of the machine, as called for by the claims. There are other devices shown in the patent, consisting of auxiliary devices, such as the mechanism for delivering the released caps from the bottom of the chute to the capping mechanism, also certain forms of driving and operating mechanisms for the plungers, slides, and feeder; but they are not material to the claims under consideration, and, therefore, we omit detailed description thereof.

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### THE CLAIMS IN SUIT.

As already stated, the claims charged to be infringed, are Nos. 1, 3, 5, 9, 10, and 11. They read as follows:

1. An endless traveling carrying belt, a stop E, ex-

tending across it to change the direction of the cans, and arms swinging over the belt, whereby the delivery of the cans from the belt to the feeder is rendered exact, substantially as herein described.

3. In combination with a transverse belt, the feeder having the projecting arms between which the cans are received from the belt and the actuating devices by which the motions of the feeder are produced, substantially as herein described.

5. The inclined chute into which the caps are placed and a stop extending across said chute, so as to prevent the caps from moving downward, in combination with a trigger extending across the path of the cans moved toward the capping table, said trigger being connected with the stop, so that as it is moved backward by the passage of the can, it withdraws the stop to allow a cap to move down the chute, substantially as herein described.

9. The vertically moving plunger upon which the cans are delivered by the feeder, in combination with the conical guide situated above the cans, and the transversely moving slides upon which the caps are received and held, with a mechanism by which the

slides are withdrawn as the can enters the cap, substantially as herein described.

10. The vertically moving plunger by which the can is raised to receive the cap, and the guide into which the upper end of the can enters the transversely-moving cap-holding slides, in combination with the second plunger moving vertically above the cap and following it down by gravitation or otherwise so as to steady the can in its descent after the cap has been applied, substantially as herein described.

11. The vertically moving plunger upon which the can is received, a carrier for placing the can upon the plunger, and a mechanism by which this plunger is reciprocated vertically in combination with a second plunger, which rests upon the top of the cap and steadies it while descending, and a mechanism for raising the second plunger before the arrival of the next cap, substantially as herein described.

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The next matter of inquiry will be as to the state of the art, so that we can properly determine the construction of these claims.



## STATE OF THE ART.

That our construction as to the scope of the Jensen claims is correct is sustained by the showing of the state of art made by the defendants. Only two prior patents were offered by them for that purpose, those of Edmund Jordan, No. 307,197, dated October 28, 1884, for a can-heading machine, and that of George A. Marsh, No. 265,617, dated October 10, 1882, for a machine for making cans.

The Jordan machine illustrated between pages 542 and 550 of the Record shows a segmental clamp-chuck, mounted on a vertical shaft and controlled by a mechanism which gives it two motions, one horizontal and the other vertical, so that the result of the two motions is an inclined plane. The chuck is composed of several segments operated by a spring, which segments, when brought together, form a circle with a beveled mouth below and an annular space at the top. Two rotating tables are ranged, one for the purpose of feeding the cans and the other the caps. The cans and caps are placed upon these rotating tables by hand, and the chuck swings around and grasps a can-cap, then ascends and swings over the can-body and places the cap on.

How this patent can have any relevancy to the issues

involved in this case passes our comprehension. We surmise that the part of the Jordan machine, which counsel lays stress on, is the segmental clamp-chuck, and that he will use it for the purpose of contending that the capping mechanism in the Jensen machine, consisting of the conical guide and transversely moving slides, was not novel with Jensen. If so, the point will be without force, inasmuch as Jensen does not claim that mechanism by itself as a separate and independent invention. True, it is *one* of the elements in *some* of his claims, but it is only one of the elements, not the whole combination. He had a perfect right to make use of anything which was old in the art, and if he found in the art a conical guide with transversely moving slides, he had a perfect right to put them into combination with other elements and thereby form a new and useful machine.

This Jordan patent is one of the patents sued upon in the case of *Norton vs. Jensen*, 49 Fed. Rep., 859, concerning which this court used this language at page 874 of the report:

“We are of the opinion, however, that for some kinds  
“of work the machine contrived by the appellant Jen-  
“sen, is an improvement on machines previously con-  
“structed, and a very useful invention, and that it is not  
“an infringement of any rights of the appellees un-

“der the patent issued to Edmund Jordan, No.  
 “307,197. \* \* \* We hold that the Jordan can-  
 “ending machine patent, 307,197, by reason of  
 “being cumbersome and slow in its operations  
 “is not a practicable machine for putting heads  
 “on tin cans of the size required for use in put-  
 “ting up fruits, vegetables, meats, fish and similar ma-  
 “terials for individual and family use; and therefore  
 “it cannot be infringed by the use of a different ma-  
 “chine which will do such work well at a reasonable  
 “cost. It is true that Mr. Norton has testified that a  
 “Jordan machine, set up in his factory, has been oper-  
 “ated successfully. But this is only the conclusion of an  
 “interested witness. He states no particulars as to the  
 “time during which the successful operation of the ma-  
 “chine continued, nor the number of cans, whether one  
 “or a dozen or more, that were successfully operated  
 “upon; and he does not state whether or not the ex-  
 “pense attending the successful operation was or was  
 “not the cause of discontinuing the same; and besides  
 “this same witness admits that this machine is too slow  
 “in its operation to be profitably employed in heading  
 “cans of the size required in the largest numbers. The  
 “most that he claims for it is that it is a splendid work-  
 “ing machine for putting covers on gallons or other  
 “large cans, a class of work for which, so far as the  
 “evidence discloses the fact, the Jensen machine has  
 “not been used. Mr. Jordan is not the inventor of the  
 “molds or discoverer of the principle of the segmental  
 “clamp described in the specification for his patent.  
 “His invention consists of a new use of these appli-  
 “ances in combination with others to produce certain  
 “results.”

In view of this adjudication regarding the Jordan patent, it is difficult for us to see how the learned counsel for appellants can hope to convince the court that the said Jordan patent in any way affects the Jensen invention. According to that adjudication, the Jordan machine cannot do the work of the Jensen, but can only head gallon and other large cans, a class of work which the Jensen machine was never intended for.

And, furthermore, it is plainly apparent from the Jordan patent that it was never intended for putting caps on filled cans. No mention of any such proposed operation is even vaguely hinted at in the Jordan specification. On the contrary, it is there shown to be a device for putting the two ends, top and bottom, on can-bodies.

The witness Burpee expressed the opinion that the Jordan machine might be used for putting caps on filled cans, and he bases this opinion solely on the fact that the can-bodies are supplied to the chuck in an upright position. In this view the witness is, in our judgment, entirely mistaken. It is plainly apparent that the Jordan machine cannot be successfully used, as shown in the patent, for placing caps on *filled* cans. Indeed this court held in the Norton-Jensen case that it could not be used successfully for placing caps on any

kind of cans, whether filled or unfilled. It may be true that the vertical position of the can in the Jordan machine might admit of a cap being placed on the can when said can is filled, but it must be remembered that the vertical position of the can is not the only element in the problem of placing caps on filled cans. It is only *one* of such elements, and the mere fact that the cans are shown in a vertical position in the Jordan patent does not imply that the machine will successfully operate on filled cans. To cap filled cans is much more difficult than to cap unfilled cans, and it would be necessary to supply other devices than those shown in the Jordan patent to make it a successful machine for operating on filled cans. We think it too palpable for further argument that the Jordan machine was never intended to operate on filled cans, and that it would be an utter impossibility for the machine, as described in the patent, to successfully operate on filled cans. As a matter of fact it was never used for filled cans.

Regarding the other patent cited by the defendant, that of Marsh, No. 265,617, dated October 10, 1882, only a word will be necessary. It is shown between pages 536-9 of the Record. This device is not an automatic machine at all. It is a hand implement, known as a *bench-header*. It is a small contrivance to

be placed on a workman's bench and operated by hand or possibly by a treadle. It has no cap-feeding device, no can-feeding device. The caps and the cans are to be delivered by hand. In other words, the workman picks up and places the can-body in the machine by hand, then picks up a cap and places that in the machine by hand, after which he telescopes the two together by hand power. Clearly such machine has no relevancy to an automatic can-heading machine. The only feature in it claimed to resemble the Jensen is a conical guide for guiding the upper end of the can into the cap. But Jensen does not lay any claim to such device alone. It was old in the art when he appeared upon the scene, and if he desired to use it in his new combination as one of the elements thereof, he had a right to do so.

The witness Burpee was asked by his counsel whether this Marsh machine would cap filled cans, and he answered that it would. But it is apparent that it would not cap a filled can any better or in any different way than a workman could cap a filled can by hand, without the aid of any mechanism. It is not a machine for capping filled cans. It was not intended for that purpose, nor is it well adapted for that purpose, and it is verging dangerously on the ridiculous to cite this Marsh patent as having any relevancy to this case.

The state of the art as thus shown by the defendant Burpee's testimony serves only to magnify the value of the Jensen invention. It shows as clearly as possible that prior to Jensen there was no known machine for placing caps on filled cans, certainly no automatic machine, and no machine of any kind whether automatic or otherwise, that was intended for that purpose. Jensen was the first to produce an automatic machine for placing caps on filled cans, and that fact stamps his invention as one of a pioneer character. No one knows this better than the learned counsel for appellants Letson & Burpee. He has acted as the attorney for Mr. Jensen in the litigation heretofore had, and in that litigation he argued ably and successfully for the Jensen invention. If we should now read to your Honors from his brief in that litigation, the language there used in favor of the Jensen machine would perhaps appear quite as strong as any we have used in this brief. The admission made by him at the oral argument in the lower Court as to the pioneer character of that invention is all that we could desire.

#### CONSTRUCTION OF THE CLAIMS.

Having now firmly in mind the state of the art, we are prepared to construe the Jensen claims charged to be infringed, and in so doing we take them up seriatim.

## CONSTRUCTION OF CLAIM ONE.

“ An endless travelling carrying-belt, a stop E, extending across it to change the direction of the cans, and arms swinging over the belt, whereby the delivery of the cans from the belt to the feeder is rendered exact, substantially as herein described.”

The function of this claim is the supplying of cans to the feeder, and the elements going to make up the combination are (1) the belt, (2) a stop extending transversely across the belt, (3) arms swinging over the belt. It will be seen that this combination accomplishes one of the preliminary steps in the general operation of the machine, to wit., the supplying of the cans to be headed. It is, therefore, a sub-combination; but is a most material and substantial part of the general operation of the machine. It is very frequently the case that the ultimate result accomplished by a pioneer machine is made up of several independent and successive steps or results performed by independent mechanisms, and these are known in patent law as sub-combinations. This claim, therefore, is one of the features which go to make up the pioneer machine. In view of the state of the art the combination is of a pioneer character. Prior to Jensen there was no machine known for successfully capping filled cans. Con-



sequently, there was no occasion or necessity for a combination of the kind called for by this claim for supplying filled cans to a machine to be capped. Nor have the appellants made any effort to anticipate this claim, and it stands, according to the proofs, as a claim for a pioneer invention.

It cannot be denied that this record shows conclusively that Jensen was the first in the art to automatically cap filled cans. Prior to the date of his invention these cans had been capped by hand and by hand alone. He was, beyond all question, the first in the art to use an automatic machine for capping filled cans, and according to all the authorities, he must be considered a pioneer inventor.

The only part of the claim against which objection is urged by our adversaries is that portion which specifies "a stop E." It is contended by them that this language is specific and defines a specific invention. They freely admit the broad and pioneer character of the invention *actually made* by Jensen, but insist that the language of the claim, as a mere matter of language, is not sufficiently comprehensive to cover that broad invention, and consequently, the claim must be limited in scope to a narrow invention. It is our contention, however, that this claim is drawn in strict compliance with the statute, and being so drawn, *perforce* it covers the

actual invention made, which we have already shown was broad and generic. In other words, it is our contention that the device referred to in the claim as "a stop" is not limited to that form of stop specified by the letter E, but includes and covers any and all forms of stopping devices used in this particular connection in accomplishing this particular purpose. The stop E is shown in the patent as a rigid stationary bar extending transversely across the belt, which acts to stop the forward motion of the cans by operating as an obstruction in their pathway, and thereby enabling the cans to change their direction from a longitudinal travel and be carried transversely into the capping mechanism. Another form of device which performs this function, whether it be called a "stop," or by any other name, would be a mechanical equivalent of the stop E, and consequently, within the scope of the claim.

To put it in another form, the mere fact that this portion of the claim is specific in language does not prevent it from receiving a broad construction in view of the pioneer character of the invention. Claims for pioneer inventions, though couched in specific language, are entitled to a construction commensurate with the scope of the actual invention unless there be a manifest intention apparent on the face of the patent to limit

the claim to its specific form and to dedicate the broad feature to the public. Indeed, according to the letter of the statute, all claims, whether for broad or narrow inventions, should be couched in specific terms. We are aware that the modern tendency of patent solicitors is to draft claims in generic language, but this is not in accordance with the letter of the law. While we do not go so far as to contend that a claim for a generic invention couched in generic language is bad, we do assert that a claim for a generic invention couched in specific language is good.

A careful analysis of the law on this subject will prove the correctness of our position.

Prior to 1836, it was not necessary for a United States patent to contain any claim at all. The first patent act passed by Congress, that of 1790 (First Statutes at Large, 109), provided that a person who had made an invention and desired to secure a patent therefor, might file a petition with the Secretary of State, Secretary of War, and the Attorney-General, setting forth that he had made an invention and desired to secure a patent therefor; whereupon it became lawful for the said officials, or any two of them, if they deemed the invention sufficiently useful and important, to cause letters patent to be made out therefor, reciting the allegations and

suggestions of the petition, “and describing said invention or discovery clearly, truly, and fully, and thereupon granting to such petitioner or petitioners, his, her, or their heirs, administrators, or assigns, for any term not exceeding fourteen years, the sole and exclusive right and liberty of making, constructing, using and vending to others to be used, the said invention or discovery.”

These letters patent were then delivered to the Attorney-General of the United States, whose duty it was to examine the same and see if they were in conformity with the act, and they were then presented to the President, who caused the seal of the United States to be affixed thereto.

The act further provided that the patentee, at the time that the patent was granted to him, should deliver to the Secretary of State “a specification in writing, containing a description, accompanied with drafts or models and explanations of models (if the nature of the invention or discovery will admit of a model) of the thing or things by him invented or discovered and described as aforesaid in the said patent, which specification shall be so particular, and said model so exact, as not only to distinguish the invention or discovery from other things before known and used, but

“ also to enable a workman or other person skilled in  
“ the art of manufacture whereof it is a branch, or  
“ wherewith it may be nearest connected, to make, con-  
“ struct, or use the same, to the end that the public may  
“ have the full benefit thereof after the expiration of  
“ the patent term.”

No technical “ claim ” was required, but merely a definite description of the invention.

The foregoing act was repealed on February 21, 1793, and a new patent act, known as the patent act of 1793, enacted in its stead. (First Statutes at Large, 318.) This second patent act provided that the petition should be presented by the inventor to the Secretary of State, praying that a patent be issued for the invention, and that the Secretary of State should thereupon cause letters patent to be made out reciting the allegations and suggestions of the said petition, and “giving  
“ a short description of the said invention or discovery.” These letters patent were then delivered to the Attorney-General as before, and the letters patent were then sealed and delivered. The act further provided that before the inventor could receive his patent, he should make oath that he verily believed himself to be the true inventor, and “shall deliver a written description  
“ of his invention and the manner of using or process of  
“ compounding the same, in such full, clear, and exact

“ terms as to distinguish the same from all other things  
 “ before known, and to enable any person skilled in the  
 “ art or science of which it is a branch or with which  
 “ it is most nearly connected, to make, compound, and  
 “ use the same. And in case of a machine, he shall fully  
 “ explain the principle and the several modes in which  
 “ he has contemplated the application of the principle  
 “ or character by which it may be distinguished from  
 “ other inventions; and he shall accompany the whole  
 “ with drawings and written references, where the na-  
 “ ture of the case admits of drawings, or with specimens  
 “ of the ingredients and of the composition of matter  
 “ sufficient in quantity for the purpose of experiment,  
 “ where the invention is a composition matter, which  
 “ description, signed by himself and attested by two  
 “ witnesses, he shall file in the office of the Secretary of  
 “ State.”

Neither did this act make any provision for a techni-  
 cal “claim,” but merely for a written description. In-  
 termediately between this act and that of 1836, various  
 and sundry amendments were enacted, but none of them  
 referred to the subject matter under consideration, and  
 therefore need not be considered.

In 1836 Congress passed the patent act which is the  
 foundation of our present patent system and a radical

departure from anything which had preceded it. By that act, the Patent Office was established, and the elaborate system of business, substantially as at present conducted by that office, was inaugurated. The manner of securing patents ordained by that act was by the filing of a petition and specification with the commissioner of patents, and an examination and allowance by the Patent Office, and the issuance of a patent therefor. Among other things, it was provided that before an applicant could receive a patent “he shall deliver a written description of his invention or discovery, and of the manner and process of making, constructing, using and compounding the same, in such full, clear, and exact terms, avoiding unnecessary prolixity, as to enable any person skilled in the art or science to which it pertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine he shall fully explain the principle and the several modes in which he has contemplated the application of that principle or character, by which it may be distinguished from other inventions; *and shall particularly specify and point out the part, improvement, or combinations which he claims as his own invention or discovery.*”

The last clause, put in italics by us, was a new fea-

ture, and is the provision requiring the applicant to make a technical "claim." Ever since then, all patents are required to have a claim.

The act of 1836, after being amended from time to time, finally culminated in the consolidated patent act of 1870, and this was substantially embodied in the revised statutes, which constitute the present law of the land. By section 4888 of said revised statute it is provided as follows:

"Before any inventor or discoverer shall receive a  
 " patent for his invention or discovery, he shall make  
 " application therefor in writing to the commissioner  
 " of patents, and shall file in the Patent office a writ-  
 " ten description of the same and of the manner and  
 " process of making, constructing, compounding, and  
 " using it, in such full, clear, concise and exact terms  
 " as to enable any person skilled in the art or science  
 " to which it pertains, or with which it is most nearly  
 " connected, to make, construct, compound, and use  
 " the same; and in the case of a machine he shall explain  
 " the principle thereof and the best mode in which he  
 " has contemplated applying that principle, so as to dis-  
 " tinguish it from other inventions; *and he shall partic-  
 " ularly point out and distinctly claim the part, im-  
 " provement or combination which he claims as his in-  
 " vention or discovery.*"

The last clause, put in italics, is the same as the corresponding clause of the act of 1836, and is the one which



provides for a "claim." Note carefully the language thereof—he shall *particularly point out and distinctly claim* the part, improvement or combination which he claims as his invention or discovery. This language is not meaningless. It conveys a definite and exact thought. After the patentee has, in his specification, fully described his invention, he must then *particularly and distinctly* claim that part of it for which he desires protection. An invention (we are now referring to machines) must be embodied in concrete form. The drawings must show it in such form, and the specification must so describe it. It must likewise be shown and described only in one form, which, according to the act, must be "the best mode in which he has contemplated applying that principle." After this is done, the law requires nothing more than that the applicant shall *particularly and distinctly* point out the part or parts of that described machine which he claims as his invention. If it be a particular lever, cam, screw, or clutch, he must *particularly and distinctly* claim such lever, cam, screw, or clutch, and in so doing he must call it by its appropriate and specific name. When he does that, he has "claimed" his invention strictly according to the statute. The law does not assume that he is a rhetorician, or skilled in dialectics, nor require

that he shall adopt broad and generic language in order to get full protection. It merely requires that he shall claim the thing which he has invented, and in so claiming may call it and designate it by its own particular name. This is true, whether the invention be broad or narrow, pioneer or improvement, because the statute has made no distinction in claiming different kinds of invention. They must all be claimed in one and the same manner.

We are certain, therefore, that according to the statute it is sufficient for a patentee to claim his invention *in the specific forms shown by the drawings and specification*, whether that invention be a broad or narrow one, and that there is no provision of the law for framing the so-called "generic" claims of modern days.

When it comes to the matter of construing these claims, then a different question arises. The mere fact that the claim is drawn to the specific form shown does not necessitate a narrow construction, because that is the form of claim, and the only form, provided for by the statute, and whether or not the claim shall be limited to that specific form, or extended to cover other forms, depends solely and entirely upon the scope of the actual invention made. If the invention be a narrow one, then the claim will be limited to the specific form

shown and claimed; if it be a broad, pioneer invention, then the claim will not be so limited, although couched in specific language, but will be extended to other forms in which the invention may be embodied. In every case, therefore, we must go to the state of the art and ascertain what is the actual scope of the invention. That is the pivot on which every other question turns in a patent case. As stated above, we do not go so far as to contend that the modern generic claims are absolutely void, because that is not necessary to the argument, but what we do claim is that the statute authorizes—in fact, commands—that all claims must be drawn in specific terms, and, consequently, a claim for a pioneer invention, drawn in specific terms, will and must receive just as broad a construction as though framed in the broadest and most generic terms.

While this particular question has never been raised in the manner in which it is now put, so far as we are aware, still there is abundant authority to be found in the books for our contention.

*Winans vs. Denmead*, 15 How., 330, is an apt illustration of the point under discussion. The case is so familiar to all that it would be a waste of time to refer to it in detail. The claim of the patent read as follows:

“ Making the body of a car for the transportation of

“ coal, etc., *in the form of a frustum of a cone*, substantially as herein described, whereby the force exerted by the weight below presses equally in all directions and does not tend to change the form thereof, so that every part resists its equal proportions, and by which also the lower part is so reduced as to pass down within the direct frame and beneath the axle to lower the center of gravity of the load without diminishing the capacity of the car, as described.”

Eliminating the descriptive part, it will be seen that the claim is, in substance, for a coal-car made *in the form of a frustum of a cone*. The language is severely specific, and was drawn to the exact form shown in the specification and drawings. The illustration was a coal-car made in the form of a frustum of a cone. The description of the invention was the same. The claim was likewise the same, thus placing the patentee directly within the statute, which orders him to *particularly and distinctly* point out the part of the device which he claims as his invention. There could not be conceived a clearer case for the illustration of our position.

The question for the court to determine was the proper construction of this claim. Should it be limited to the form of a frustum of a cone, or could it lawfully be extended to cover other forms, for instance, the frustum of a pyramid? The court held that the solution of the question depended upon the scope of the actual

invention. If the invention was generic, the claim would receive a generic construction. If specific, then it would receive a specific construction and be limited to the conical form. The court held that the invention was generic, gave it a broad construction, and adjudged that the defendant's car, which was made in the form of the frustum of a pyramid, was an infringement. In delivering the decision of the court, Mr. Justice Curtis used the following language, which has become classic in the history of patent cases:

“ It is generally true, when a patentee describes a machine and then claims it *as described*, that he is understood to intend to claim, and does by law actually cover, not only the precise form he has described, but all other forms which embody his invention, it being a familiar rule that to copy the principle or mode of operation described is an infringement, although such copy should be totally unlike the original in form or proportion. \* \* \* Patentees sometimes add to their claims an express declaration to the effect that the claim extends to the thing patented however its form or proportions may be varied. But this is unnecessary. The law so interprets the claim without the addition of these words. The exclusive right to the thing patented is not secured if the public are at liberty to make substantial copies of it, varying its form or proportions. And, therefore, the patentee, having described his invention, and shown its principles, and claimed it *in that form*

“ *which most perfectly embodies it*, is, in contemplation of law, deemed to claim every form, in which his invention may be copied, unless he manifests an intention to disclaim some of those forms.”

In other words, this court construed the claim as if it had read: “ Making the body of a car for the transportation of coal, etc., *in a downwardly tapering form,*” etc., etc.

This case was afterwards followed and approved in:

*Western Elec. Co. vs. La Rue*, 139 U. S., 606.

*Hoyt vs. Horne*, 145 U. S., 309.

*Eddy vs. Dennis*, 95 Id., 569.

*Frost vs. Silverman*, 62 Fed. R., 465.

*Hoe vs. Scott*, 65 Id., 609.

*McCormick vs. Altman*, 69 Id., 394.

*Heap vs. Greene*, 91 Id., 794.

*Norton vs. Jensen*, 49 Id., 866.

*Long vs. Pape*, 75 Id., 838.

*Independent E. L. Co. vs. Jeffrey*, 76 Id., 991.

*Metalic Ex. Co. vs. Brown*, 104 Id., 353.

*Reece vs. Globe Mch. Co.*, 61 Id., 958.

*Devlin vs. Paynter*, 64 Id., 398,

and many others.

It will thus be seen that the case of *Winans vs. Denmead* has, for the last half century, been consistently

followed by the federal courts, both appellate and *nisi prius*, and never once doubted. It is to-day the law of the land, and under its authority Jensen was fully justified in framing his claim 1 in the form in which it appears in his patent.

One of the most eminent judges who ever decided patent cases was the late Mr. Justice Bradley. He is often referred to as a "strict constructionist" in the interpretation of patent claims; yet no one could be more liberal than he, where he was satisfied that the patentee had made a meritorious invention but had been unfortunate in the choice of terms in his claims, and that the defendant was relying upon a mere verbal distinction to save himself from the penalty of infringement. A notable instance of this is seen in the case of *Ives vs. Hamilton*, 92 U. S., 426. The invention related to a method for hanging a saw in a saw-mill, and was one of great value. The claim was couched in the following awkward phraseology:

"Giving to the saw in its downward movement a rocking or rolling motion by means of the combination of the cross-head working in *curved* guides at the *upper* end of the saw, the lower end of which is attached to a cross-head working in *straight* guides and pivoted to the pitman *below* the saw, with the crank-pin substantially as described."

This claim described the cross-head as working in *curved* guides, at the *upper* end of the saw, and the *lower* end of the saw attached to a cross-head working in *straight* guides and pivoted to the pitman *below* the saw. The defendant was able to evade the letter of the claim by discarding the *curved* guides for the upper cross-head and using instead thereof *angular* guides, and by pivoting the lower end of the saw to the pitman *below*, instead of *above*, the cross-head. In the court below the case was tried by a jury, resulting in a verdict for the plaintiff, and on motion for new trial (6 Fish., 244) Judge Longyear sustained the verdict, and rendered a most able opinion in support of the patent. These views were concurred in by Mr. Justice Bradley, who affirmed the judgment and gave a sufficiently broad construction to the patent to include the defendant's machine. The claim had been drawn to the precise mechanism shown in the patent. The patentee had *particularly* pointed out and *distinctly* claimed the part of the machine which was his invention, as required by law, and it being a broad invention, the claim was held broad enough to cover the variations from that form which accomplished the same result. Had the claim been worded in generic terms, the defendant doubtless would not have contested the point; but, as it



was worded in specific terms, he urged that it must be limited to the specific form. But the court held otherwise. This case is a direct authority for our proposition, that, where the invention is a broad one, it is sufficient to claim it in the form shown in the patent, and the claim will be construed to cover and include all other forms which accomplish the same result in substantially the same manner.

The case of *Clough vs. Barker*, 106 U. S., 166, is another instance in point. The invention was an improvement in gas-burners, and the second claim of the patent read thus:

“In combination with the bat-wing burner, perforated at the base and surrounding tube, the tubular valve for regulating the supply of external gas to the burner, substantially as described.”

This claim was drawn to the precise structure shown, *particularly and distinctly*, as the statute requires. It appeared that in no prior structure had a valve arrangement been applied to regulate the flow of gas in such a combination, and, consequently, the claim was entitled to a broad and liberal interpretation. The defendant had varied the form of construction, but the court held that the claim must be given a sufficiently broad construction to include the defendant's burner.

The decision, rendered by Mr. Justice Blatchford, used the following language:

“Although in the Clough structure the burner and  
 “surrounding tube revolve together in adjusting their  
 “position in reference to that of the tubular valve, so  
 “as to let in or turn off the supply of gas through the  
 “perforations, and although in the Clough structure  
 “the flame revolves by the revolution of the burner,  
 “and although in the defendant’s burners the revolu-  
 “tion of the surrounding tube regulated the supply of  
 “gas through such perforations, and neither the burn-  
 “er nor the flame revolved, the defendant’s valve ar-  
 “rangement must be held to have been an equivalent  
 “for that of Clough to the full extent to which that of  
 “Clough goes, involving, perhaps, improvements, but  
 “still tributary or subject to the patent of Clough. It  
 “is true that that patent describes the tubular valve as  
 “being inside of the burner tube. But Clough was the  
 “first person who applied a valve regulation of any  
 “kind to the combination to which he applied it, and  
 “the first person who made such combination, and he  
 “is entitled, under decisions heretofore made by this  
 “court, to hold as infringements all valve regulations,  
 “applied to such a combination, which perform the  
 “same office in substantially the same way as, and were  
 “known equivalents for, his form of valve regulation.”

Another apt case is that of *Western Electric Co. vs. La Rue*, 139 U. S., 601, where the opinion was rendered by Mr. Justice Brown. The invention was stated

in the specification to relate to "telegraph keys," and the claim involved read as follows:

"The combination in a *telegraph key* of a lever, fulcrumed upon the torsional spring, with the adjusting screws 'HH' for regulating the amplitude of the lever movement and the retractile resistance of the torsional spring, substantially as described."

It will be observed that the claim distinctly refers to a "telegraph key," which is an instrument used for sending messages, not for receiving them. The defendant had used the same combination in a "telegraph sounder," which is an instrument used for receiving the message at the opposite end of the line. The question was whether this claim should be limited by the exact language used, or whether it should be given a construction broad enough to include other instruments than a telegraph key. This court held that, inasmuch as the patentee was the first in the art to apply the principle of a torsional spring to telegraph instruments of any kind, his claim should be given such construction as would include the use of the spring in all such instruments, whether they be keys for the transmission of messages or sounders for the receipt of messages. The patentee had *particularly* and *distinctly* claimed his invention in the form shown in his patent, but as it was of a pioneer character, the claim in that form was held

to be sufficient to cover other forms. In deciding the case, Mr. Justice Brown used the following pertinent language, at page 606:

“ Against this analogous use of his combination, the  
 “ patentee is as much entitled to protection as if the  
 “ word ‘sunder’ had been expressly inserted in his  
 “ claim. Since the case of *Winans vs. Denmead*, 15  
 “ How., 330, it has been the settled doctrine of this  
 “ court, as expressed in the opinion of Mr. Justice Cur-  
 “ tis, p. 343, that the patentee, having described his in-  
 “ vention and shown its principle and claimed it in that  
 “ form which most perfectly embodies it, is in contem-  
 “ plation of law, deemed to claim every form in which  
 “ his invention may be copied, unless he manifests an  
 “ intention to disclaim some of these forms.”

The next case in point, also decided by Mr. Justice Brown, is *Hoyt vs. Horne*, 145 U. S., 302. The invention related to a rag-engine for making paper, and the claim read as follows:

“ The improvement in beating rags to pulp in a rag-  
 “ engine, having a beater-roll and bed-plate knives, con-  
 “ sisting in circulating the fibrous material and liquids  
 “ in vertical planes, drawing the same between the  
 “ knives at the bottom of the vat, carrying it around  
 “ and over the roll, and delivering it into the upper sec-  
 “ tion of the vat, substantially as described.”

The circulation of fibrous material and liquid in ver-  
 tical planes resulted from passing that material alter-

nately under and over a horizontal partition; whereas in the prior art that material had been circulated horizontally around a vertical partition. The defendant's apparatus was provided with a horizontal partition at one end and a vertical partition at the other, and therefore, the pulp in it did not circulate in vertical planes, as called for by the plaintiff's patent. In rendering the decision, Mr. Justice Brown said (p. 308) :

“ It is insisted by the defendant, in this connection, “ that there is no infringement of the first claim of the “ Hoyt patent, since the pulp is not circulated in verti- “ cal planes, nor is it delivered by the beater-roll into “ the upper section of the vat as specified in that claim. “ Literally, it is not. A technical reading of the speci- “ fication undoubtedly requires that the mid-feather “ should run horizontally instead of vertically; but “ the object of this was that the pulp should be received “ and delivered by the beater-roll along its entire “ length, viz: across the entire width of the tub, and “ this is accomplished in the same way in both devices. “ \* \* \* The substitution of a vertical for a horizon- “ tal mid-feather at the inoperative end of the tub is “ merely the use of an old and well-known mechanical “ equivalent, and obviously intended to evade the word- “ ing of the claim of the Hoyt patent. (*Winans vs. “ Denmead*, 15 How., 330.) Indeed, the ingenuity dis- “ played in this evasion is only equalled by the ingenu- “ ity with which it is concealed in the specification of “ the defendant's patent.”

In the case of *Sessions vs. Romadka*, 145 U. S., 29, where the opinion was rendered by Mr. Justice Brown, the invention related to a trunk-fastener, and the claim was couched in the following narrow specific terms:

“The spring catches, I, constructed and applied to the front of the body, as described, in combination with the tongues or hasps J on the top, when arranged to operate as set forth.”

It would scarcely be possible to conceive of language more narrow in scope than that of this claim. It even goes to the extent of designating the elements by specific letters. It also does another, and a most unusual thing, that is, in the body of the claim, after specifying one of the elements by letter, it adds the words “as described”; and at the end of the claim it adds the following unusual form of limitation, viz: “When arranged to operate as set forth.”

If there ever was a case on record where the language of the claim was specific, this is the case. The patentee had, with the most servile fidelity, adhered to section 4888 of the revised statute in *particularly* and *distinctly* pointing out the part of the machine which he claimed. The defendant, of course, had used a different form of construction, and thereby had avoided the language of the claim. But it appeared from the evidence that

the invention was pioneer in character, and this court, without any hesitation whatever, held that it was entitled to a broad construction, and was not limited to the specific devices called for by the language of the claim. Said Mr. Justice Brown, in rendering the decision of the court:

“In view of the fact that Taylor was a pioneer in the art of making a metallic trunk fastener, and invented a principle which has gone into almost universal use in this country, we think he is entitled to a liberal construction of his claim, and that the Romadka device, containing as it does all the elements of the combination, should be held to be an infringement, though there are superficial dissimilarities in their construction.”

Compare this case with *Sutter vs. Robinson*, 119 U. S., 531; *Keystone Bridge Co. vs. Phoenix Iron Co.*, 95 U. S., 274, and *Hendy vs. Iron Works*, 127 U. S., 370, where the elements of the claims were referred to by reference letters and the claims construed narrowly and limited to the specific form shown, not because the language was narrow, but because the invention was narrow.

It is shown by the evidence that the principle embodied in the machine of each of said cases was old and that the invention was a narrow one. Consequently, this court limited the claim in each case to the pre-

cise construction shown, and held that an apparatus of a different construction, though embodying the same principle, was no infringement.

The point we are discussing is very clearly illustrated by the decision of this court in the case of *Deering vs. Winona Harvester Works*, 155 U. S., 286, involving the patent of one Olin relating to a harvester.

The claim was drawn to the specific construction shown, as the statute requires, and the question at issue was what construction should be placed upon the claim. It appearing that the invention itself was a narrow one and not of a pioneer character, a narrow construction was placed on the same, which was limited to the specific mechanism shown. In rendering the decision of the court Mr. Justice Brown, said:

“ If Olin had been the first to devise the contrivance  
“ of this description for adjusting the flow of grain  
“ upon the main elevator, it is possible that under the  
“ cases of *Ives vs. Hamilton*, 92 U. S., 426, and *Hoyt*  
“ vs. *Horne*, 144 U. S., 302, a construction broad  
“ enough to include defendant’s device might have been  
“ sustained. But in view not only of the prior devices,  
“ but of the fact that his invention was of doubtful util-  
“ ity and never went into practical use, the construc-  
“ tion claimed would operate rather to the discouragement  
“ than the promotion of inventive talent.”



In other words, the mere wording of a claim is not of any great moment in determining its construction; but the scope of the invention itself is the important feature. If the invention is a broad one, the court will give the claim a broad construction, notwithstanding the fact that the claim is framed in specific language; but if the invention is a narrow one, then the court will place upon the claim a narrow construction and limit it to its exact language.

As bearing on the point we may refer also to the case of *Westinghouse vs. Boyden Power Brake Co.*, 170 U. S., 568, where it is said:

“ We have repeatedly held that a charge of infringement is sometimes made out though the letter of the claim be avoided. (*Machine Co. vs. Murphy*, 97 U. S., 120; *Ives vs. Hamilton*, 92 U. S., 426; *Morey vs. Lockwood*, 8 Wall., 230; *Elizabeth vs. Pavement Co.*, 97 U. S., 126; *Sessions vs. Romadka*, 145 U. S., 29; *Hoyt vs. Horne*, 145 U. S., 302.”

A most instructive case, from a *nisi prius* court, however, is that of *Murphy vs. Eastman*, 5 Fish., 306, decided by Judge Shepley a great many years ago. The invention related to a brush-head, and was described in a specific geometric form and claimed in that form. The defendant had used a different geometric form and thereby evaded the strict wording of the claim; but

the invention being one of a pioneer character, infringement was found. In deciding the case Judge Shepley used the following language:

“ The patentee does not, as is sometimes done, claim  
“ in terms the thing patented, however its form and pro-  
“ portions may be varied; but the law so interprets the  
“ claim without the addition of these words. In con-  
“ templation of law after he has fully described and  
“ claimed it in a form which perfectly embodies it, un-  
“ less he disclaims other forms, he is deemed to claim  
“ every form in which his invention may be copied.”

Another case of like import is that of *Metallic Ex- traction Co. vs. Brown*, 104 Fed. Rep., 346, which was decided by the circuit court of appeals for the eight circuit. The invention related to an ore-roasting furnace, and the claim read as follows:

“ In an ore-roasting furnace having means for stir-  
“ ring and advancing the ore, a supplemental chamber  
“ *at the side of the* main roasting chamber and cut off  
“ from said main chamber by a wall or partition, and  
“ carriers in said supplemental chambers connected  
“ with the stirrers, but removed from the direct action  
“ of the heat, fumes and dust, substantially as herein  
“ described.”

It will be observed that the language of this claim required that the supplemental chamber should be located *at the side* of the main roasting chamber. It was

so shown in the drawings and described in the specification without any statement or intimation that it could be located at any other place. The defendant had located his supplemental chamber *under* the main chamber instead of *at the side*, and the question was whether the claim must be limited by the language used to a supplemental chamber, placed at the side of the main chamber, or whether it could be construed to cover a chamber placed underneath, instead of at the side of the main chamber. The court found that the invention was of a pioneer character, and, consequently, held that the claim was not limited to a supplemental chamber placed at the side of the main chamber, but was sufficient to cover one placed underneath. The judgment went for the patentee. If the court had found that the invention was not of a pioneer character, then the claim would have been limited to the language used and no infringement would have been adjudged.

Another instructive case is that of *McCormick Harvesting Machine Co. vs. Aultman*, 69 Fed. Rep., 371, decided by the circuit court of appeals for the sixth circuit, wherein the opinion was rendered by Judge Taft. The invention was for a grain binder, and the claims were most narrow and specific in terms, reading as follows:

“ 3. The reciprocating segments C<sub>4</sub>, having the  
 “ feed teeth C<sub>6</sub>, in combination with the guides D, as  
 “ and for the purpose specified.

“ 10. The flexible strap g, arranged in receptacles  
 “ G, to operate the trip lever H, in the manner substan-  
 “ tially as and for the purposes described.

“ 11. The combination of the binding strap and  
 “ cord g, with the bundle receptacle G, and tooth-feed-  
 “ ing segments C<sub>4</sub>, substantially as and for the purpose  
 “ described.”

It was found by the court that these claims covered inventions of a pioneer character, and, consequently, they were given a broad construction, notwithstanding their specific language.

In deciding the case Judge Taft used the following language:

“ It is further pressed upon the court that the mere  
 “ fact that the claims of the Gorham patent are ex-  
 “ pressed by reference to the lettered parts of the ma-  
 “ chine, as shown in the drawings, must lead to a literal  
 “ and formal construction of the claims, and limit their  
 “ scope exactly to the form of the device used and sug-  
 “ gested by Gorham. \* \* \* Whether he specific-  
 “ ally claims in his patent the benefit of equivalents or  
 “ not, the law allows them to him according to the  
 “ nature of his patent. If it is a mere improvement on  
 “ a successful machine, a mere tributary invention, or  
 “ a device the novelty of which is confined by the past  
 “ art to the particular form shown, the range of equiva-

“ lents is narrowly restricted. If it is a pioneer patent  
 “ with a new result, the range is very wide, and is not  
 “ restricted by the failure of the patentee to describe and  
 “ claim combinations of equivalents. Nothing will re-  
 “ strict a pioneer patentee’s rights in this regard save  
 “ the use of language in his specifications and claims  
 “ which permit no other reasonable construction than  
 “ one attributing to the patentee *a positive intention* to  
 “ limit the scope of his invention in some particular to  
 “ the exact form of the device he showed, and a conse-  
 “ quent willingness to abandon to the public any other  
 “ form, should it be adopted and prove useful.”

The syllabus of the case on this point is as follows :

“ The mere use of reference letters in the claims of  
 “ a combination patent does not of itself, where the in-  
 “ vention is really of a primary and pioneer character,  
 “ limit the scope of the claims to the exact form shown.  
 “ On the contrary, nothing will restrict a pioneer pat-  
 “ entee’s rights, save the use of language in his specifica-  
 “ tions and claims which permits of no other reasonable  
 “ construction than that he positively intended to limit  
 “ the scope of his invention to the particular form  
 “ shown, thus indicating a willingness to abandon to  
 “ the public any other form.”

The question was again examined by that court in the case of *National Hollow Brake Beam Co. vs Interchangeable Brake Beam Co.*, 106 Fed. Rep., 714, where the claim under discussion read as follows :

“ The combination in a brake beam of a hollow beam, “ a strut *end plugs or caps 8, and a truss rod 3, which* “ extends through *the caps 8, and is provided with nuts, substantially as and for the purposes specified.*”

In the opinion rendered by Judge Sanborn it is there said:

“ Finally it is said that the patent is limited to the “ precise geometrical form of end caps shown in the “ specification and drawings, by the fact that the figure “ ‘8’ appears after the words ‘end caps’ in the claim. “ There are cases wherein the form of a device is the “ principle of the invention. There are other cases “ wherein the state of the prior art and the specific terms “ of the specification and drawings leave no doubt of the “ intention of the applicant to restrict his claim to the “ specific form of the device or element he points out. “ In such cases claims of patents are sometimes limited “ to the specific forms of the devices pointed out by “ letters or numbers in the claims or specifications. “ (*Weir vs. Morden*, 125 U. S., 98, 107; *Railroad Co. vs. Kearney*, 158 U. S., 461, 469; *Crawford vs. Hey-singer*, 123 U. S., 589; *McCormick Harvesting Mach. Co. vs. Aultman, Miller & Co.* (C. C.), 58 “ Fed., 773; *Newton vs. Manufacturing Co.*, 119 U. S., “ 373; *Bragg vs. Fitch*, 121 U. S., 478; *Dryfoos vs. Wiese*, 124 U. S., 32; *Hendy vs. Iron Works*, 127 U. “ S., 370, 375.) But this is not a case of that character. “ The form of the caps and the specific mechanical de- “ vices by which they should be locked with the brake- “ head and brake beam were immaterial to the principle “ of this invention. Caps of many forms, many obvious

“ mechanical devices for fastening them to the compression member, the brake-heads and the brake beams, and preventing these elements from rotating upon each other, would perform the same function in the combination of the patentee as those which he pointed out. The specification, the drawing, and the claim show that the patentee was not ignorant of this fact, nor of the law by which this patent must be interpreted. He never claimed the form of his caps as a part of his invention. He never described in his specification or drawing as an essential part of his invention or of the caps themselves, those peculiarities in the caps by the omission of which the appellee seeks to escape infringement.

“ The description is a specification or drawing of details which are not, and are not claimed as essential elements of a combination, is the mere pointing out of the better method of using the invention. (*City of Boston vs. Allen*, 91 Fed., 248, 249, 33 C. C. A., 485, 486.) A reference in a claim to a letter or figure used in the drawing and in the specification to describe a device or an element of a combination does not limit the claim to the specific form of that element there shown, unless that particular form was essential to, or embodied the principle of, the improvement claimed. (*Sprinkler Co. vs. Koehler*, 82 Fed., 428, 431, 27 C. C. A., 200, 203, 54 U. S. App., 267, 272; *McCormick Harvesting Machine Co. vs. Aultman, Miller & Co.*, 69 Fed., 371, 393, 16 C. C. A., 256, 281, 37 U. S. App., 299, 343; *Muller vs. Tool Co.*, 77 Fed., 621, 23 C. C. A., 357, 47 U. S. App., 189; *Delemater vs. Heath*, 58 Fed., 414, 424, 7 C. C. A., 279,

“ 284, 20 U. S. App., 14, 30; *Reed vs. Chase* (C. C.),  
 “ 25 Fed., 94, 100; *Walk. Pat.* (3d ed.), Sec. 117a.)  
 “ That interpretation which sustains and vitalizes the  
 “ grant should be preferred to that which strikes down  
 “ and paralyzes it. (*Reece Button Hole Mach. Co. vs.*  
 “ *Globe Button Hole Mach. Co.*, 61 Fed., 958, 962, 10  
 “ C. C. A., 194, 198, 21 U. S. App., 244, 363; *Consoli-*  
 “ *dated Fastener Co. vs. Columbian Fastener Co.* (C.  
 “ C.), 79 Fed., 795, 798; *American Street-Car Adver-*  
 “ *tising Co. vs. Newton St. Ry. Co.* (C. C.), 82 Fed.,  
 “ 732, 736; *McSherry Mfg. Co. vs. Dowagiac Mfg.*  
 “ *Co.*, 41 C. C. A., 627, 101 Fed., 716, 722.) One who  
 “ appropriates a new and valuable patented combina-  
 “ tion cannot escape infringement by uniting or operat-  
 “ ing its elements by means of common mechanical de-  
 “ vices which differ from those which are pointed out  
 “ for that purpose, but which are not claimed in the  
 “ patent. (*Deering vs. Harvester Works*, 155 U. S.,  
 “ 286, 302; *City of Boston vs. Allen*, 91 Fed., 248, 249,  
 “ 33 C. C. A., 485, 486; *Schroeder vs. Brammer* (C.  
 “ C.), 98 Fed., 880.)”

And the syllabus of the case on this point is as follows:

“A reference in a claim of a patent to a letter or fig-  
 “ ure used in the drawing and in the specification to  
 “ describe a device or an element of a combination does  
 “ not limit the claim to the specific form of that device  
 “ or element there shown, unless the particular form  
 “ was essential to, or embodied the principle of, the im-  
 “ provement claimed.”



Other cases deciding this point are:

*Sprinkler Co. vs. Koehler*, 82 Fed. R., 428.

*Muller vs. Tool Co.*, 77 Id., 621

*Delemater vs. Heath*, 58 Id., 414.

*Reed vs. Chase*, 25 Id., 94.

In view of the rule of law announced in the cases cited, it follows that the stop called for by Jensen's claim 1 is not necessarily limited to "the stop E"—that is to say, to a stop consisting of a stationary bar, but includes and covers any and all forms of stop which perform the same function in the same manner.

The Jensen claim 1 must be construed as though it read as follows:

"An endless traveling carrying-belt, *a device* extending across it to change the direction of the cans, and arms swinging over the belt, whereby the delivery of the cans from the belt to the feeder is rendered exact, substantially as herein described."

Such is the real scope of the invention covered by the claim, and if it had been so worded, even the technical counsel for our adversaries could have urged nothing against it.

That this claim is entitled to be construed as though the word "device" were substituted for the words "a stop E" is settled by the cases cited above, and we con-

tend that the claim must be construed to cover a combination of the belt and swinging arms with any and all forms of devices which operate to stop the forward, or longitudinal, movement of the cans and to change their direction of movement so that they can be conveyed to the capping mechanism.

The learned judge of the lower court construed this claim as calling for "a rigidly fixed stop bar." In other words, he held that the element specified in the claim as "a stop E," is limited to the precise form of stop device shown in the Jensen patent, thereby making the claim cover a *narrow*, instead of a *broad*, invention, a *specific*, instead of a *generic* one. In the opinion rendered he did not elaborate the point nor give the reasons which formed the basis for this conclusion; but merely stated in a general way that one of the elements of the claim was "a rigidly fixed stop bar."

In this conclusion we respectfully submit that there is error. In construing the claim the initial inquiry should be to ascertain the scope of the *actual invention* made, and that fact is determined by the state of the art. If the actual invention is a generic one, the claim will receive a broad construction; if only a specific one, then it will receive a narrow construction. The mere fact that this disputed element is designated by a letter

does not necessarily compel a narrow construction. The authorities which we have cited on this point are too conclusive to admit of question, and the statute prescribing the form of claim is too definite to be disputed. That statute requires that the patentee "shall *particularly* point out and *distinctly* claim the part, improvement, or combination on which he claims as his invention or discovery." Jensen followed this statute and did *particularly* point out and *distinctly* claim the part of the machine which was his invention, so far as this particular claim is concerned. Having done all that the law requires in this regard and claimed the invention in the form shown, he is entitled to a broad construction of this claim and is not limited to the specific form shown, provided his invention be of a generic character.

The supreme court said in *Winans vs. Denmead*, heretofore referred to:

"It is generally true, when a patentee describes a machine and then claims it *as described*, that he is understood to intend to claim and does by law actually cover not only the precise form he has described, *but all other forms which embody his invention.*"

In that case the patentee had described his invention as being "in the form of the frustum of a cone," and he had claimed it in that specific language.

Yet the supreme court held that the claim must be considered as covering not only that precise form, but any and all other forms embodying the same idea, and accordingly held that the claim was infringed by a device made in the form of the frustum of a pyramid.

And in *Murphy vs. Eastman*, heretofore cited, Judge Shepley says:

“ The patentee does not claim in terms the thing patented however its form and portion may be varied, but the law so interprets the claim without the addition of these words. In contemplation of law, after he has fully described and claimed it in a form which perfectly embodies it, unless he disclaims other forms, he is deemed to claim *every form* in which his invention may be copied.”

And we again beg leave to remind the court that the statute Sec. 4888 of the revised statutes, not only provides that the patentee shall particularly point out and distinctly claim the thing invented, but it further provides that he must show his invention in *one form only*, which must be the form he considers to be the best. In other words, he is not allowed to show and describe a multiplicity of forms in which his invention may be embodied, *but only one form*, and after he has done that and claimed it *in that form*, the law considers his patent

as covering other forms, if the invention be of a pioneer character.

We respectfully submit that Jensen's claim 1 is drawn directly in accordance with this law as laid down in the revised statutes and interpreted by the cases cited.

Take, for instance the case of *Sessions vs. Romadka*, 145 U. S., 29, where the claim was for a combination in which one of the elements was specified as "the spring "catches I" and another as "the tongues or hasps, J." The invention there was of a pioneer character, and the court held that the claim was entitled to a broad construction, notwithstanding the specific form of language used in the claim and the designation of some of the elements by letters.

The same ruling was made by the circuit court of appeals for the sixth circuit, through Judge Taft in the case of *McCormack vs. Aultman*, 69 Fed. Rep., 371, and in the case of *National Hollow Brake-Beam Co. vs. Interchangeable Brake-Beam Co.*, 106 Fed. Rep., 714, already quoted herein at length.

In a word, there can be no doubt as to the law on this subject, which is simply this: *Where elements of a claim are specified by letters or numbers, the claim is not necessarily limited to that specific form, and will not be so limited, unless the actual invention made is a*

*narrow one. If in such case the actual invention is generic, then the claim will receive a broad construction, notwithstanding the specific language used.*

Permit us now to inquire briefly as to the scope of the invention made, so far as claim 1 is concerned. In referring to the stop E, the specification of the patent says:

“Stops or bars E extend across the tables at right angles with the belt A, and their ends extend above the belt, so that when the cans reach these bars, they are prevented from moving any farther with the belt. They are then taken by the feeder or carrier F, and transferred by successive stages across the table, the first stage delivering them upon the rising and falling plunger, etc.”

Thus it will be seen that the function of the stop E is quite plain. The cans are being carried along longitudinally with the moving belt; when they reach the place where the stop E is located, it is necessary to prevent any further forward motion and to remove them from the belt transversely and carry them to the capping mechanism. Or, to put it in the words of the claim, “to change the direction of the cans.” Their initial direction is longitudinal; their successive direction is *transverse* to the belt. Now, it is apparent that any device which stops the forward motion and pro-

duces the transverse, thereby changing the direction of the cans, is the thing attempted to be covered by that claim. In the eyes of the law, it is immaterial whether that thing be a rigidly fixed stop bar or a rotating wheel. The name by which it is called is immaterial. It is the function of the thing itself about which we are concerned. Jensen wanted some device, or thing, or mechanism, whatever might be its form or whatever might be its name, which would change the direction of those moving cans, and that is the scope of his invention, so far as this element is concerned, thus placing the case on all fours with *Winans vs. Denmead*.

Again, the specification says: "Stops or bars E extend across the table," etc. Nothing is said about these stops being *rigidly fixed*, nor is there any statement in the specification anywhere that they shall be *rigidly fixed*, and we respectfully submit that the learned judge of the lower court was in error when he said in his decision that this device must be "a rigidly fixed stop bar." His conclusion does not follow from the language of the specification, and we have seen, as matter of fact, that it is not necessary for the device to be rigidly fixed in order to accomplish the end sought.

Again, in referring to this element, Jensen's specification says that these stops or bars must be arranged

“so that when the cans reach these bars they are prevented from moving any farther with the belt.” There is the gist of the whole matter. That sentence describes the function of these stops, and it is utterly immaterial whether it be performed by a device which is rigid or one which is movable.

The language used by the supreme court in *Machine Co. vs. Murphy*, 97 U. S., 120, covers this case as with a blanket. It was there said:

“Nor is it safe to give much heed to the fact that the corresponding device in the two machines organized to accomplish the same result is different in shape or form the one from the other, as it is necessary in every such investigation to look at the mode of operation, or the way the device works, and at the result, as well as the means for which the result is obtained. Authorities concur that the substantial equivalent of a thing, in the sense of the patent law, is the same as the thing itself, so that if the two devices do the same work in substantially the same way and accomplish substantially the same result, they are the same, even though they differ in name, form, or shape.”

And, at another place in the same case, it is said by the court:

“In determining the question of infringement the court or jury, as the case may be, are not to judge about similarities or differences by the names of



“ things, but are to look at the machines or their several  
“ devices or elements in the light of what they do or  
“ what office or function is performed and how they  
“ perform it, and to find that one thing is substantially  
“ the same as another, if it performs substantially the  
“ same function in substantially the same way to obtain  
“ the same result.”

We respectfully submit, therefore, in view of the authorities cited, that Jensen's claim 1 is not limited to a combination in which a rigid fixed bar or stop is one of the elements, as found by the lower court, but must be construed as broadly covering any and all devices which will stop the further forward movement of the cans and change their direction. To repeat what we have already said before, Jensen's claim 1 must be construed as though it read as follows:

“An endless traveling belt, *a device* extending across  
“ it to change the direction of the cans, and arms swing-  
“ ing over the belt whereby the delivery of the cans  
“ from the belt to the feeder is rendered exact, substan-  
“ tially as herein described.”

If we are correct in this argument, then the lower court erred in regard to claim 1, and all that portion of the decree which denies us relief as to claim 1 must be reversed.

## CONSTRUCTION OF CLAIM THREE.

3. *In combination with a transverse belt, the feeder having projecting arms, between which the cans are received from the belt, and the actuating devices by which the motions of the feeder are produced, substantially as herein described.*

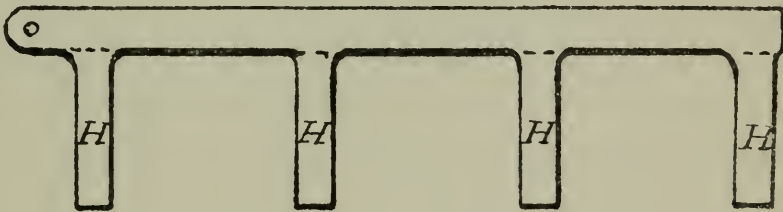
This claim is a sub-combination and covers a broad generic invention. It is intended to cover the operation of supplying unfilled cans and "feeding" or "carrying" them to the capping mechanism. The elements of the combination are (1) belt, (2) feeder, and (3) actuating mechanism. The first element delivers the cans; the second feeds them to the capper, and the third actuates or drives the feeder. The only limitation on any of these elements is the statement that the feeder has "projecting arms between which the cans are received from the belt." It will be noted, however, that no particular form or kind of arms is specified, and, consequently, a feeder which has any kind of devices that grasp the can is within the claim. There is nothing shown in the prior art similar to this mechanism, and the claim, both by its language and by the state of the art, is entitled to a broad construction.

This is one of the claims which was adjudged to be not infringed. In order to reach that result, the

learned judge of the lower court held that the "feeder," specified therein as one of the elements, was limited to the exact form of feeder shown in the patent. In this, we claim error.

The feeder shown in the patent is lettered F. It is in form a rake, having a straight back and four arms projecting at right angles so as to form three stalls or pockets, as shown in the following cut.

Jensen Feeder.



The actuating mechanism is so arranged as to produce a circular sweeping motion of this feeder. When the incoming can reaches the stop, it is caught between the first two arms of the feeder, and by a circular sweeping motion swept from the belt at right angles thereto. The feeder then recedes and leaves the can stationary upon the table until the next sweep of the feeder, when it is received between the second two arms and delivered to the capping mechanism. By the final sweep of the feeder, the can is grasped by the last two arms and conveyed away with the cap on.

The function of this feeder is merely that of a carrier or conveyor of the cans, a means for removing them from the belt. Any other device which would accomplish that result is within the claim. The only limitation is that it must have "projecting arms between " which the cans are received from the belt." It is not intimated in the claim that the feeder is to do anything else than to have arms "between which the cans are " received from the belt," and it is our contention that any kind of feeder having arms *which remove the cans from the belt* is within the claim. In other words, the sole and only function of the feeder called for by this claim is *to remove the cans from the belt*.

It is true that our feeder does something more; because it not only removes the cans from the belt, but it also removes them from the capping mechanism after they are capped. But this latter function is not mentioned in the claim. That feature is not intended to be covered by the claim. The only kind of a feeder intended to be covered by the claim is one which removes the cans from the belt. Consequently, any form of feeder which does that is within the claim.

The learned judge of the lower court was of the opinion that there must be read into the claim the peculiarities of construction and entire mode of operation

shown by the specification and drawings to inhere in the feeder F. This construction, of course, brought into the claim not only the function of removing the cans from the belt, but all the other functions subsequently performed by the feeder, consisting in its step-by-step mode of progression and the ultimate removal of the capped can from the capping mechanism. We insist vigorously that this was error, because the language of the claim does not call for a feeder having such peculiarities, but only for a feeder which has the function of removing the uncapped cans from the belt. That, and that alone, is intended to be covered by this claim. The language supports the contention and the State of the art confirms it. Under these circumstances, are we not entitled to the usual presumptions which obtain in such cases? Certainly, no reason to the contrary was advanced by the trial judge, and we are at a loss to understand how he fell into such an error.

#### CONSTRUCTION OF CLAIM FIVE.

5. *The inclined chute into which the caps are placed and a stop extending across said chute, so as to prevent the caps from moving downward, in combination with a trigger extending across the path of the cans, as they are moved toward the capping table, said*

*trigger being connected with the stop, so that as it is moved backward by the passage of the can, it withdraws the stop to allow a cap to move down the chute, substantially as herein described.*

This is a broad and comprehensive claim, covering a pioneer invention of remarkable ingenuity and undoubted merit. The essence of the claim consists in the releasing of the caps by the can itself, so that each can automatically supplies its own cap. Prior to Jensen, this had never been done, but the caps had always been supplied by hand. This claim is the first in the history of the art where the can, by its own motion, automatically releases, from a collection of caps, its own particular cap, ready for the capping operation.

The elements of the claim are: (1) a cap-carrying chute; (2) a stop extending across the chute to regulate the movement of the caps; (3) a trigger in the path of the cans; (4) connecting mechanism between the trigger and the stop, all so combined and arranged that the can pulls the trigger, and thereby the stop is released and a cap moves down the chute towards the capping mechanism, to be applied to the particular can which has released it. When the released cap reaches the bottom of the chute, a forked arm or finger, designated in the patent by the letter "V," and operated by an ingen-

ious mechanism of levers, cams, toggle-joints, etc., not necessary to be described here, reaches forward and rakes the cap into the capping mechanism, and there places it in its proper position immediately above the can to be headed. The operation of this forked arm "V" resembles very much the operation of a human hand, and, indeed the operation of the combination of claim 5, whereby each can releases its own cap, seems almost to partake of human intelligence. It is certainly is one of the most ingenious pieces of mechanism we have ever been called upon to examine, and illustrates and embodies an idea entirely original with Jensen. Nor can there be any question as to its utility. It acts with the precision of clock-work, and as long as the machinery is in good order it is impossible for it to make a mistake. This claim is, beyond all peradventure of a doubt a claim for the broadest and most pioneer of inventions. There is nothing in the prior art resembling it in the remotest degree. It performs a function which in every respect is entirely new, and was original with Jensen. This is admitted by defendants.

Under these circumstances, the claim is entitled to the broadest and most liberal construction ever given to any claim. It is not confined to the form of the particular elements which go to make up the combination, but

covers all other devices which would be mechanical equivalents thereof in the broadest sense of the term.

The lower court construed this claim as we have above indicated it ought to be construed, and decreed infringement thereof. It is our contention that this ruling was correct. Indeed, we do not understand that the appellants seriously contest the matter. Hence, we shall not dwell on it further.

#### CONSTRUCTION OF CLAIM NINE.

9. *The vertically moving plunger upon which the cans are delivered to the feeder, in combination with the conical guide situated above the cans, and the transversely moving slides upon which the caps are received and held, with a mechanism by which the slides are withdrawn as the can enters the cap, substantially as herein described.*

It is our contention that this claim covers a broad and pioneer invention in the art of heading filled cans, and the lower court upheld us in such contention.

The state of the art in this case is represented by the prior patents of Marsh and Jordan, since they were the only ones put in evidence by the defendants. Neither of those patents shows the combination of Claim 9. And furthermore, as we have already shown, the



Marsh machine was not an automatic one at all, but merely a hand-operated device, while the Jordan machine, as found by this court in the original Jensen case, was and is an impracticable contrivance. In view of this scanty and insufficient showing by the defendants, we are certainly entitled to the usual presumptions which obtain in such cases.

#### CONSTRUCTION OF CLAIM TEN.

10. *The vertically moving plunger by which the can is raised to receive the cap, and the guides into which the upper end of the can enters, the trasversely moving cap-holding slides, in combination with the second plunger moving vertically above the cap and following it down by gravitation or otherwise, so as to steady the can in its descent after the cap has been applied, substantially as herein described.*

This claim is the same as claim 9, with the addition of the second plunger overhead, whose function is clearly stated in the claim. If claim 9 is entitled to the construction we contend for, it follows that claim 10 is entitled to a similar construction, and it will not be necessary for us to dwell on the subject. The lower court found according to our view, and decreed the infringement of this claim.

## CONSTRUCTION OF CLAIM ELEVEN.

11. *The vertically moving plunger upon which the can is received, a carrier for placing the can upon the plunger, and a mechanism by which this plunger is reciprocated vertically in combination with a second plunger which rests upon the top of the cap and steadies it while descending, and a mechanism for raising the second plunger before the arrival of the next cap, substantially as herein described.*

If we are correct in our preceding argument, it follows therefrom that this claim must receive the same broad construction as claims 9 and 10. The elements of the claim are: (1) the vertically moving plunger; (2) a carrier for placing the can on the plunger (3) a mechanism by which the plunger is reciprocated vertically; (4) the second plunger overhead; (5) a mechanism for raising the second plunger before the arrival of the next cap.

The state of the art fails utterly to show any such combination, or anything like it. Beyond all question, it is a novel combination in the art of heading filled cans, or, for that matter, any kind of cans; but certainly, as to the art of heading filled cans, it is novel, because prior thereto there was no automatic machine in existence which would successfully head filled cans. The

Marsh machine was a hand-operated device. The Jordan machine was an impracticable one. Neither of these prior devices shows this combination.

The lower court found that this claim was limited, and, consequently, not infringed; but in view of the fact that the court had already found that claims 9 and 10 were pioneer in character, it is impossible for us to understand the reason for the ruling as to this claim 11. It seems to us that if the ruling of the lower court is correct as to claims 9 and 10, it follows as an irresistible conclusion that the same ruling must be made as to claim 11. The ground on which the lower court found that claim 11 was limited in character is the contention that the element specified therein as "a carrier for placing the cans upon the plunger" is limited to the specific form of carrier shown in the Jensen patent and does not include any other form of carrier. Very little was said in the opinion on this subject, and we quote the same in whole:

"It is unnecessary to discuss the eleventh claim any further than to say that among the devices making the combination of that claim there is included a part which I have heretofore referred to as the second feeder F, which is not reproduced in the defendant's machine, as I have heretofore explained, and there-

“fore the eleventh claim is not infringed by the defendant’s machine.”

We respectfully submit that the learned judge was in error in thus reading into claim 11 the specific form of carrier referred to in the Jensen patent by the letter F. It is true, as we have heretofore shown, that said carrier F, as delineated in the drawings and described in the specification of the Jensen patent, consists of a straight back, with four arms at right angles thereto, forming stalls or pockets, and driven by a mechanism which gives it a circular sweeping movement. But by what right can any one assert that this claim 11 is limited to a carrier of that specific form or character? Certainly, the language of the claim does not support such a contention, for it specifies “a carrier for placing the cans upon the plunger.” That is to say, it calls for *any kind* of carrier, whatever may be its form, whether round, square, or oblong, whether intermittent or continuous, so long as it performs the single function of “placing the can upon the plunger.”

Nor does the state of the prior art support the ruling of the lower court. Prior to Jensen, in the art of heading filled cans by automatic machinery, not only had no device of this kind been ever used, but no device of any kind at all. If this be true, then this claim cannot

be limited to any particular form of carrier. We know of only two lights to be guided by in construing a claim, viz: the language of the claim and the scope of the invention as shown by the prior art. Here, the language does not call for any particular form of carrier. On the contrary, it is broad and unlimited, calling for "a carrier," which certainly means *any* carrier. The prior art likewise shows that the claim must be construed broadly, for it fails to show any analogous device, and does show that Jensen was the first in the art. We feel the utmost confidence in the correctness of our position regarding this claim, and we do not think it necessary to do further than to point out the broad character of the language used in the claim and the absence of any such analogous device in the prior art. We so treated the matter in the lower court and refrained from indulging in any extended argument on the point. Probably we were wrong in this course, and should have taken nothing for granted, remembering the old maxim to "beware of a plain case." We submit that this part of the decree was erroneous and should be reversed.

Having disposed of the construction which we think ought to be given to the claims in controversy, we advance now to the next point in the argument, which will be a construction of the mechanism of the defendant's machine.

## DESCRIPTION OF THE DEFENDANTS' MACHINE.

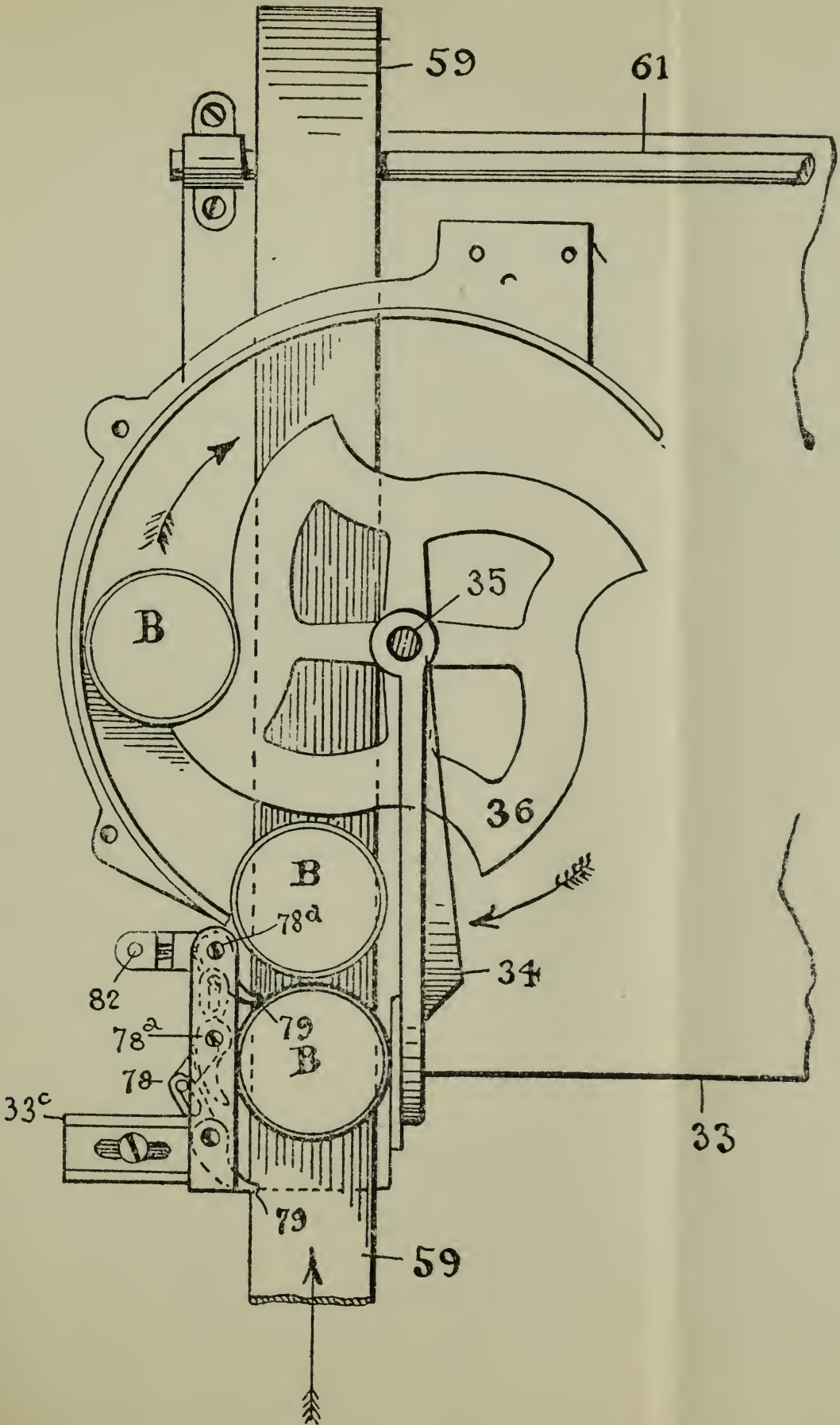
This machine is built under letters patent of the United States, No. 629,574, issued on July 25, 1890, to the defendants in this case, and illustrates the ingenuity of an infringer in his efforts to evade the patent. The defendants contend that their machine is a better one than the Jensen, and that it will cap more cans in a given time. On this point, it may be remarked that it would be strange if, after the eleven years' experience of the Jensen machine, which was the first of its kind in the art, skilled mechanics could not improve upon it in details of construction. It may also be remarked that it is immaterial whether the defendants' machine is or is not better than that of the complainant. The question is whether the defendants have in their machine appropriated the substance and essence of the Jensen invention, as covered by the Jensen patent.

Like the Jensen, the defendants' machine consists of the same fundamental elements, differing only in matters of form.

On the adjoining page is a cut marked "Cut V, Letson & Burpee's Can-Feeding Mechanism," representing that portion of the defendants' machine whereby the cans are delivered to the feeder. In the drawing, 59 is the endless traveling belt, and BB are the cans resting thereon. The devices marked 79, 79, are the

CUT V.

Letson & Burpee's Can-feeding Mechanism.



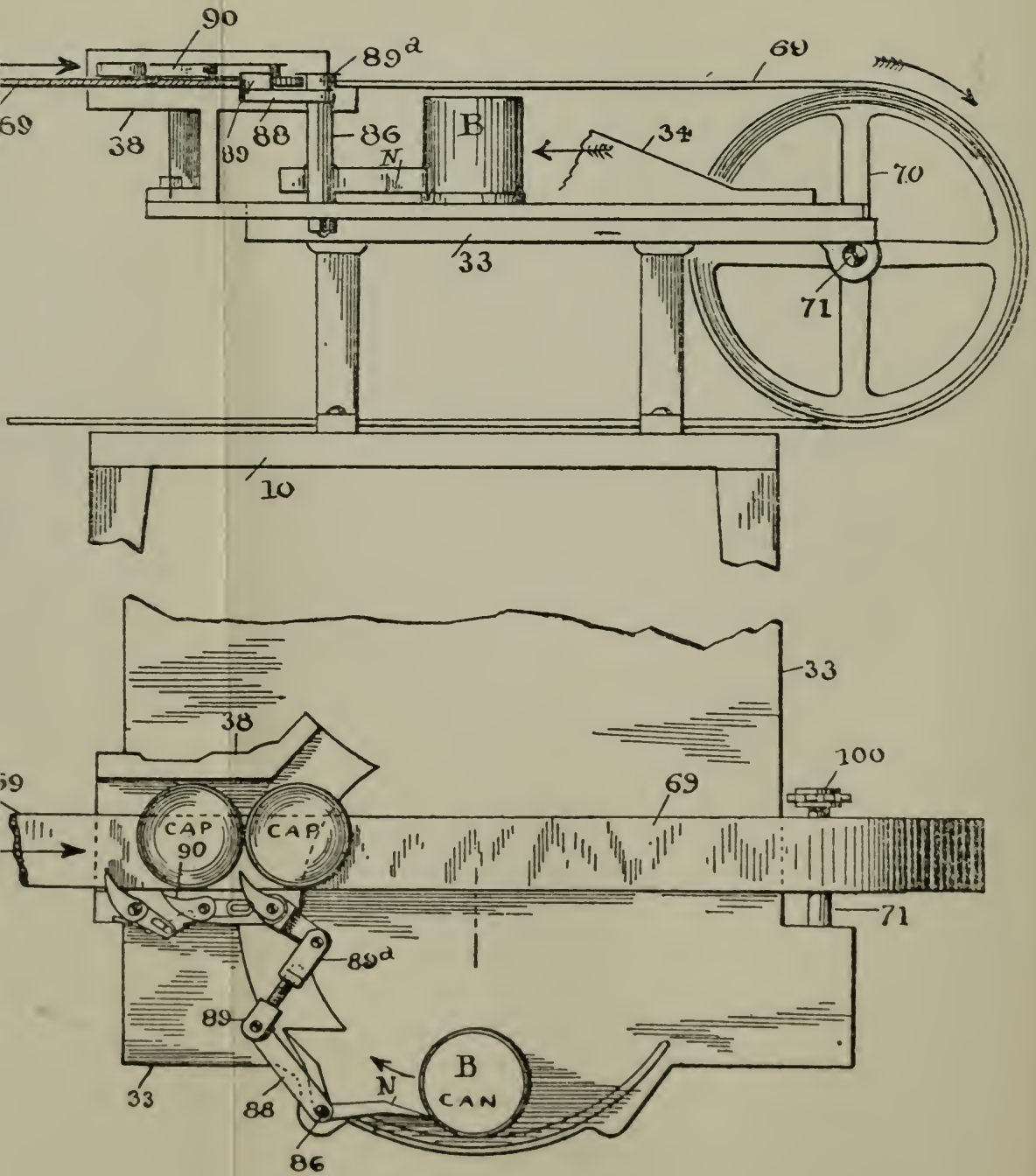






CUT VI.

Letson & Burpee's Cap-feeding Mechanism.



“ arms swinging over the belt, whereby the delivery of  
“ the cans from the belt to the feeder is rendered exact.”  
They are spacing devices separating the cans and regulating their delivery, performing exactly the same function and in substantially the same way as the corresponding arms in the Jensen device. The device in the drawing, marked 36, is a toothed wheel rotating on a spindle, 35, across the surface of the belt. As shown in the drawing, when the can reaches this wheel it will strike against the same, as shown, and thereby the forward motion of the can will be retarded or practically arrested. In other words, that portion of the wheel rim acts as a transverse stop, extending across the belt to arrest further progress of the cans. It does not effect a dead stop, but slows up the motion so as to allow the recess in the wheel to come around. Immediately thereafter, as the wheel rotates, the can is caught in the recess of the wheel and removed from the belt into the circular guideway shown. The forward can in the drawing is shown as resting in the recess of the wheel and moving along the circular guide-way in the direction of the arrow.

The next drawing, shown on opposite page and marked “Cut VI, Letson & Burpee’s Cap-Feeding Mechanism,” shows the defendants’ mechanism for releasing the caps. These caps are fed to the machine by

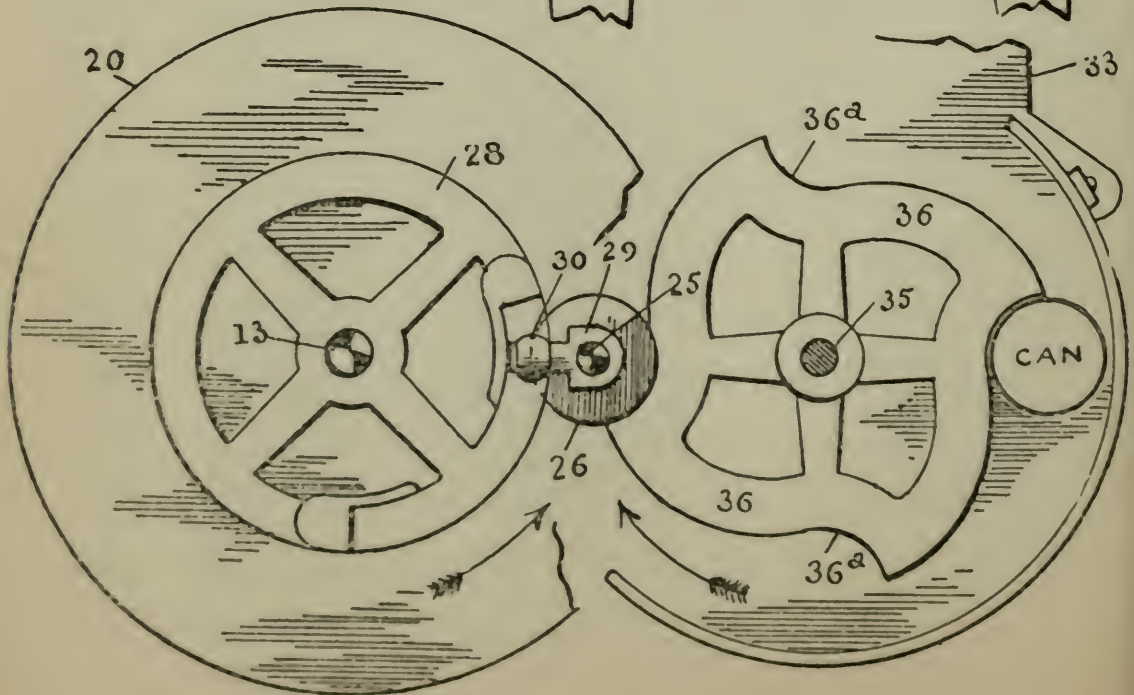
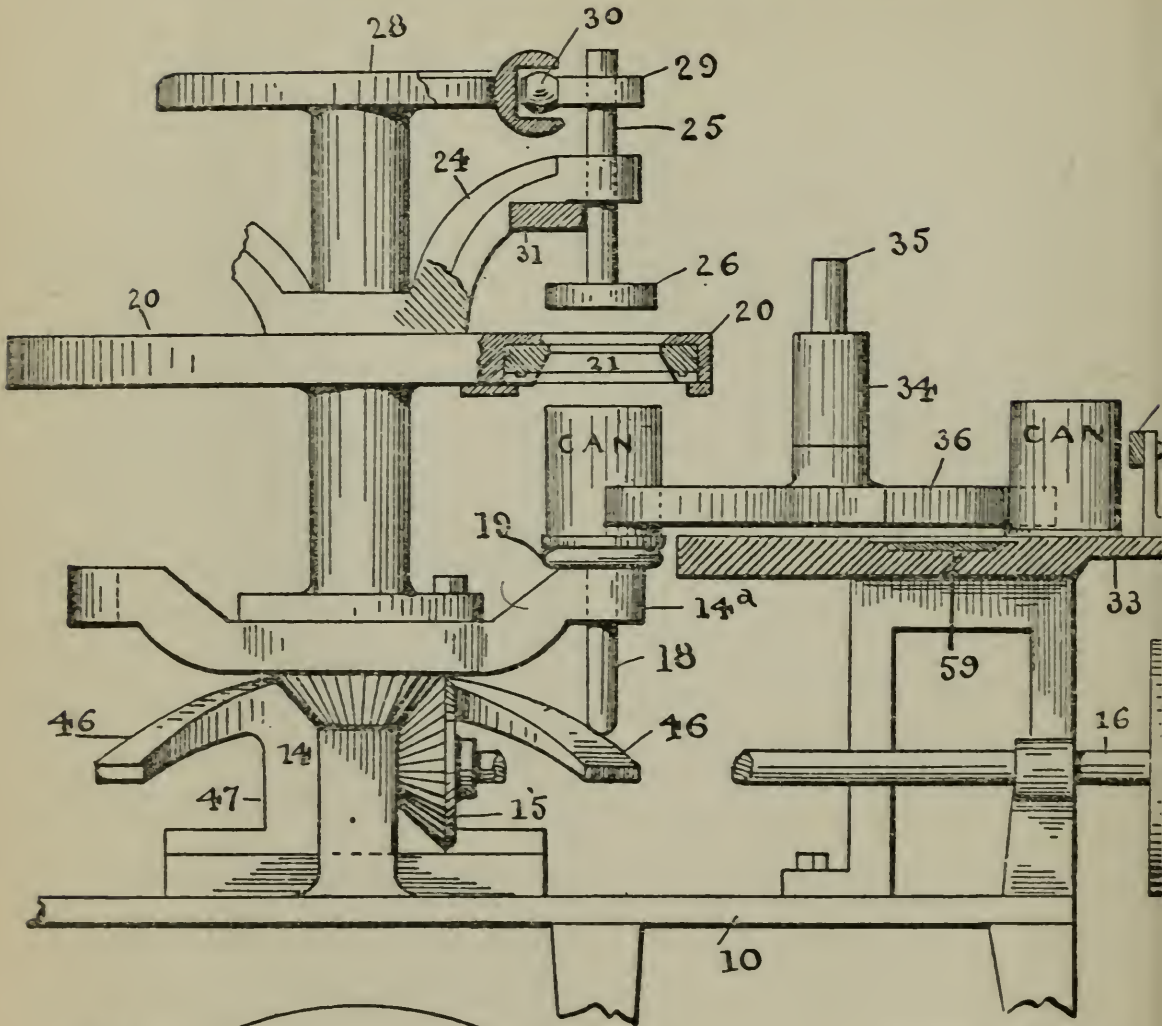
an endless belt, instead of by an inclined chute, and they are held in place on the belt, separated from one another by the stops, as clearly shown in the drawing. The letter N designates the trigger immediately in the path of the moving cans, and this trigger is shown to be connected with the stop, which restrains the caps. When the can strikes against the trigger N, the stop releases the cap, and this cap is delivered by the belt to a device which carries it to the capping mechanism (not shown in this drawing), where it is placed on the can. *Each can automatically releases its own cap.* The only difference between this mechanism and that of Jensen is the substitution of a belt for the inclined chute as the device for feeding the caps. But Mr. Jensen claims no invention in a cap-carrying chute, in and by itself, and consequently a cap-carrying belt is an equivalent of the cap-carrying chute. This we will discuss later.

Another remark at this point is pertinent. When a cap is released by the stop on the defendants' belt, it is not delivered directly to the capping mechanism, but to an intermediate device, which in turn delivers it to the capping mechanism. This intermediate device consists of a skeleton wheel similar to the carrier wheel for the cans. The caps are fed into the circular recesses of this wheel, and in that way carried to the capping



CUT VII.

Letson & Burpee's Can-capping Mechanism.



mechanism. The Jensen machine likewise has an intermediate delivery device for the caps, differing, however, in form, from that of defendants. It consists of a forked arm, which, by an ingenious motion, rakes the caps toward the capping mechanism almost precisely as a human finger would do. This intermediate mechanism is no part of the claims in suit, being covered by others not sued on, and hence is not material to the present inquiry.

The next drawing, reproduced on opposite page and marked "Cut VII, Letson & Burpee Can-Capping Mechanism," shows, in general outline, the capping device. The feeder, 36, is shown as having already delivered one can to the plunger, which plunger is represented by the figures 19. The plunger consists of a seat, 19, on which the can rests, and a spindle, 18, passing loosely through a vertical bore in the rotating arm, 14a. The bottom of this spindle, 18, moves on the stationary cam-face, 46, which is an inclined plane. As the spindle moves on this cam, it is pushed upward through the vertical hole in the arm, 14a, and thereby the plunger, 19, carries the can upward through the conical guide shown, the opening in which is marked 21. Immediately above this conical guide are three transversely moving slides for holding the caps over the can-body,

which will be illustrated more in detail by a subsequent drawing. Above these slides is a second plunger, 26, called in the Letson & Burpee patent a "cap-presser," whose function is to act as a back-plate in the capping operation, and also, as we claim, to follow the capped can down and steady it. It is operated by the mechanism marked 28, 29, and 30, which differs in details from the corresponding mechanism in the Jensen patent. That fact, however, is immaterial, inasmuch as no claim is made by Jensen for any particular form of mechanism for operating his upper plunger. His claims in that regard call merely for a "mechanism."

The drawing on the adjoining page, marked "Cut VIII, Letson & Burpee's Slides," will more clearly illustrate the details of the slides above referred to. These slides, 51, are three in number, and, when brought together form a complete circle. They have the annular ledge or rim, 51b, which acts as a seat for the cap, precisely as in the Jensen device. Immediately under these slides is shown the conical guide, 52, which acts in exactly the same manner as the Jensen device. The upper plunger is designated as 26, and its stem as 25. The lower plunger is designated by the figure 19, and its stem by the figure 18, as in the other drawing. The operation of the device is quite clear from this drawing, and needs no further description.



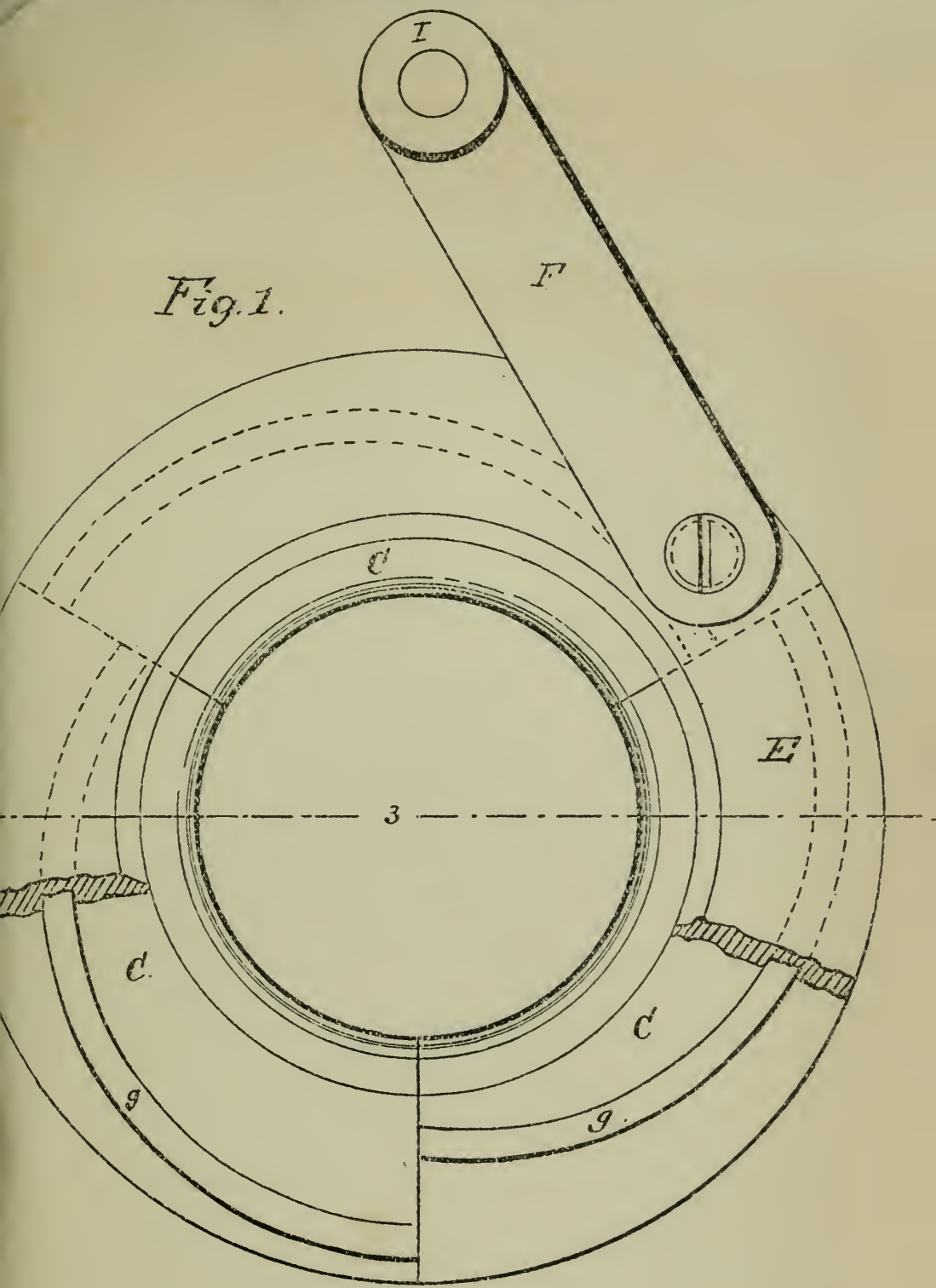


Fig. 1.

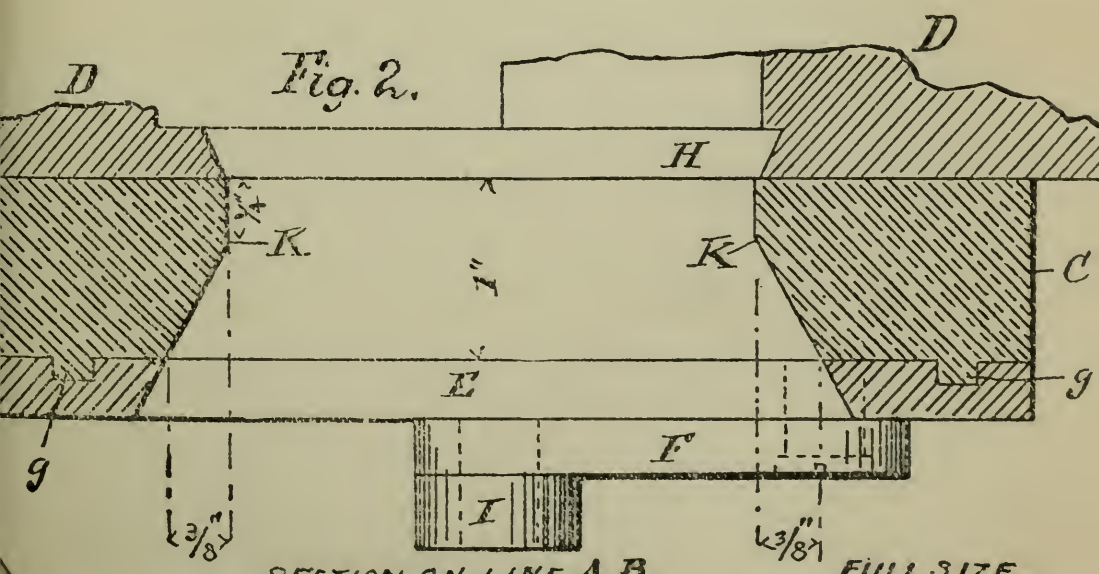
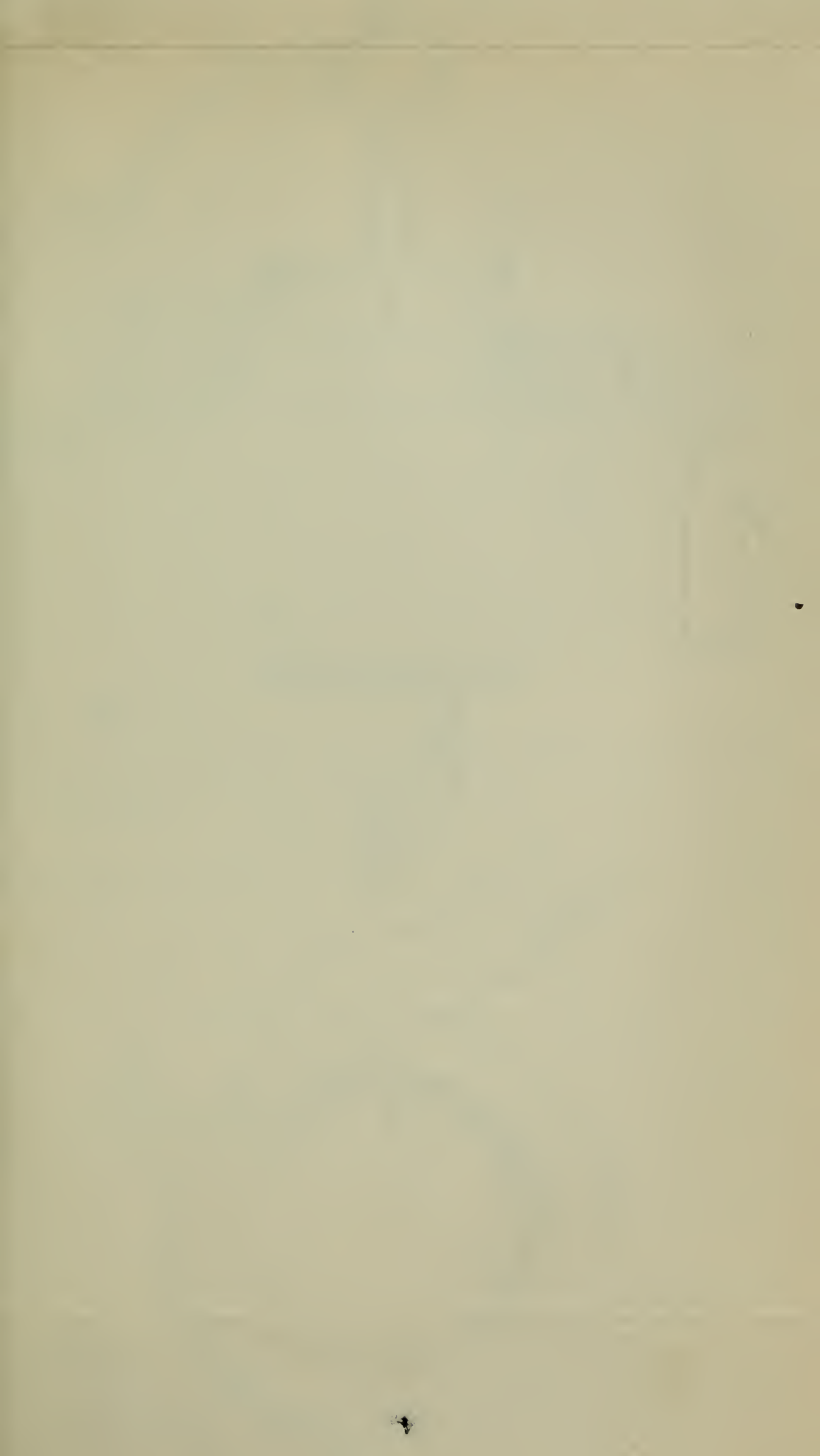


Fig. 2.

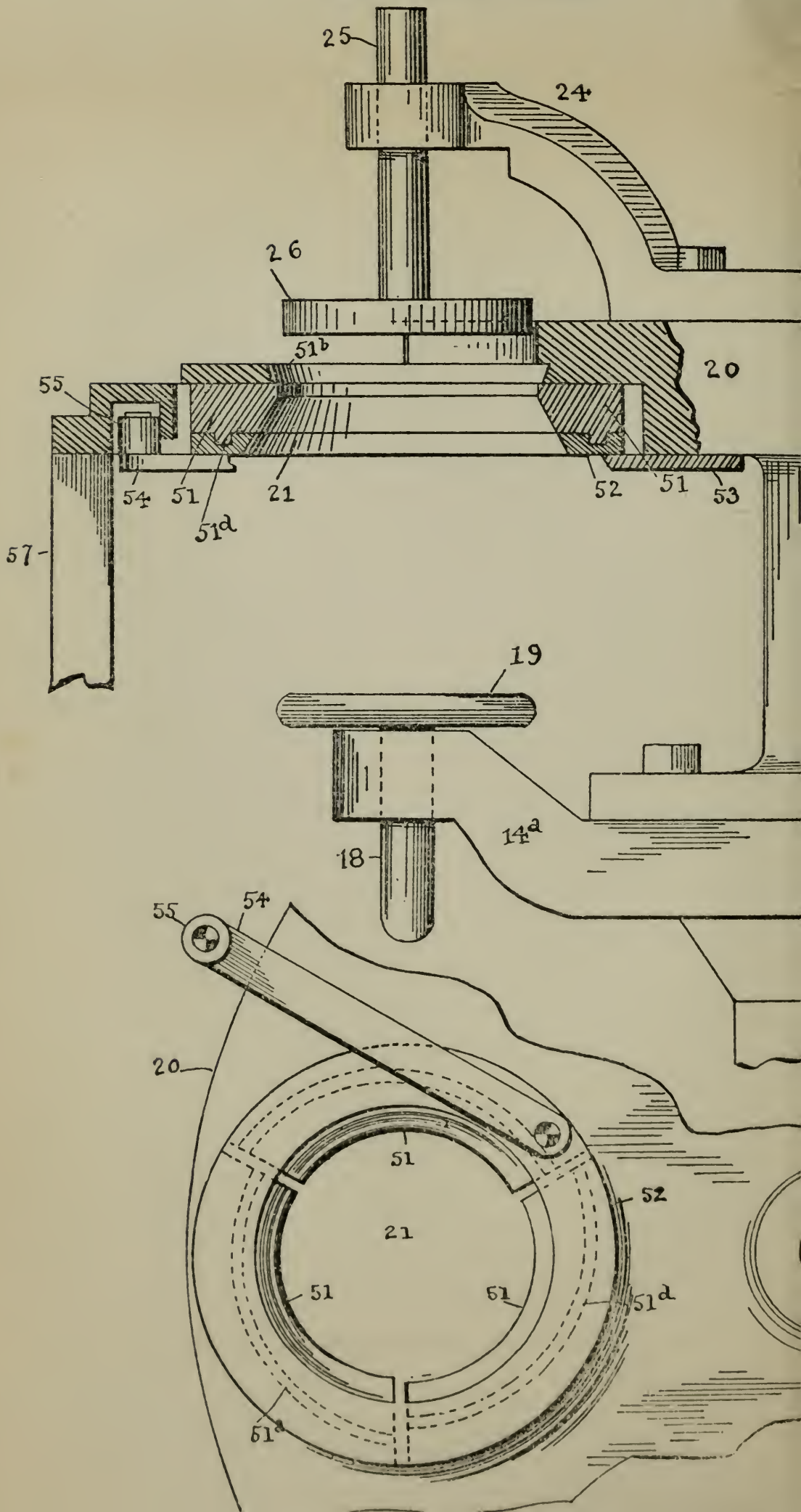
SECTION ON LINE A.B.

FULL SIZE.





Letson & Burpee's Slides.



A modified form used by defendants in some of their machines, as proved by the testimony of Mr. Burpee first taken, is illustrated in the drawing reproduced on opposite page and marked "Cut IX, Letson & Burpee Slides—Modified Form."

In that cut, DD represents portions of the main face-plate. H is a flared hole in said plate. CC are the three transversely moving slides. When these slides move inwardly, an annular ledge or seat is formed, clearly shown in the cut, on which the cap rests. After the can enters the cap, the slides recede and the capped can descends.

It may also be remarked, for further explanation, that the Letson & Burpee machine contains four of these can-capping mechanisms. Each one is mounted on an arm, which revolves around a central vertical shaft, and the cans are capped while these devices are revolving. Four cans are operated on at the same time, and this helps to explain the increased capacity of the machine. In Jensen's machine only one capping mechanism proper is used, and it does not rotate. These differences are not material to the claims in controversy. This matter will be further adverted to later on herein.

It will be seen from the foregoing that the Letson &

Burpee machine contains all the fundamental and essential elements of the Jensen, viz :

1. *An endless can-feeding belt for supplying the cans to the machine.*

2. *Arms swinging over this belt to render the delivery of the cans from the belt to the feeder exact.*

3. *A device, i. e., a stop, extending transversely across the belt to arrest further forward motion and change the direction of the cans.*

4. *A feeder, which, by a circular sweeping motion, transfers the cans from the belt to the capping mechanism.*

5. *A cap-feeding device for supplying the caps to the machine.*

6. *A mechanism whereby each can releases its own cap, consisting of a stop in the path of the caps, a trigger in the path of the cans, and a connecting mechanism between the stop and the trigger.*

7. *A capping mechanism, consisting of two oppositely placed plungers, a conical guide, and transversely moving cap-holding slides.*

There can be no question that these are the fundamental elements of the Jensen machine. Nor can there

be any doubt that the Letson & Burpee machine contains all of the aforesaid fundamental elements. It is true that some of these elements, as shown in the Letson & Burpee machine, are of different form and details of construction from the corresponding elements shown in the drawings of the Jensen patent, but that fact is immaterial when we consider the pioneer character of the Jensen invention. This brings us directly within the ruling of Judge McKenna in the case of *Bowers vs. Von Schmidt*, 63 Fed. Rep., 580. Referring to the question of an excavator, the learned judge there said:

“It is sufficient to state my conclusion from the evidence, which is that plaintiff’s excavator is broadly new and entitled to a liberal rule of equivalents, and, applying such, the defendant’s excavator is an infringement of it. There is a difference in the mounting of the two excavators—a difference in the shapes of their cutting blades—but they are essentially the same, and operate substantially the same way, producing the same result. It may be, as is claimed, that defendant’s excavator is the better. It may be, as appears to be conceded by plaintiff, that it is an invention, but this does not prevent it from being an infringement, under the decision of *Morley Sewing Machine Co. vs. Lancaster*, 129 U. S., 263, and the cases there cited. *Norton vs. Jensen*, 49 Fed., 859; *Miller vs. Manufacturing Co.*, 151 U. S., 207; *Reece Button Hole Machine Co. vs. Globe Button Hole*

“*Machine Co.* (decided by the court of appeals for the first circuit, April 20, 1894), 61 Fed., 958.”

This Von Schmidt decision was affirmed by this court in 80 Fed. Rep., 121, where the law is stated that in the case of a pioneer invention the claim therefor is entitled to a broad and liberal construction, and a subsequent device, which performs the same function in substantially the same way, is an infringement, although such subsequent device may differ from the patented device in details of construction, and may even amount to a patentable invention.

Referring again to the case of *Norton vs. Jensen*, 49 Fed., 862, we find the same rule of law. It is there said:

“Norton’s invention must, therefore, be considered as being of a primary character, standing at the head of the art as the first machine ever invented for applying tight exterior-fitting can-heads to can-bodies automatically, and appellees are entitled to a broad and liberal construction of the claims of their patent. \* \* \* The fact that the Jensen machine, as constructed, is an improvement in some respects upon appellee’s machine must be admitted; but this does not relieve it from the character of an infringing machine. Norton, being the original inventor, he and those claiming under him would have the right to treat as infringers all persons who make devices for machines operating on the same principle and per-



“forming the same functions by analogous means or  
“equivalent combinations, even though the infringing  
“machine may be an improvement on the original and  
“patentable as such.”

It may be remarked here that in the subsequent case of *Norton vs. Wheaton*, 70 Fed. Rep., 833, the court of appeals, upon a fuller showing of the state of the art, which had not been made in the original Jensen case, held that the Norton patent was not of a pioneer character; but that does not change the rule of law announced in the original Jensen case. In fact, it serves to strengthen our position in the case at bar; for it is apparent that if in the original Jensen case that full showing of the state of the art had been made which was subsequently made in the Norton-Wheaton case, beyond all doubt it would have been held that the Jensen machine was not an infringement upon the Norton patent.

But, however that may be, the original Norton-Jensen decision does not militate against the pioneer character of the Jensen machine, because the Norton machine was not a machine for placing heads on *filled* cans, whereas the Jensen machine is designed especially and particularly for the purpose of putting the caps on *filled* cans, and in that particular regard is the first machine of the kind in the art. It is in that feature that

we claim pioneership for Jensen. We do not claim that Jensen machine is a pioneer machine broadly for capping cans, but what we do claim is that it is a *pioneer machine for automatically capping filled cans*, and as such it met a long-felt want in the art and has proven to be an inestimable boon to the salmon-canning industry of the world.

#### DIFFERENCES BETWEEN THE MACHINES.

We now call the court's attention to some differences of construction between the Jensen and the Letson & Burpee machines. The main difference, and the one which the learned counsel for defendants principally rely on, is that the Jensen machine is an "intermittent" or "stop-motion machine," as he calls it, whereas the Letson & Burpee machine is a "continuously operating one." In the Jensen machine, when a can is removed from the feed-belt it is transferred by the feeder to a certain point on the table, and there left standing temporarily while the feeder retraces its steps and grasps another can. When it returns, the first can that has been left temporarily standing is again grasped by the feeder and delivered to the capping mechanism. In this way the machine may be said to be an "intermittent" machine, or, as the learned counsel denominates it, a "stop-motion" machine. On on the other hand,

the Letson & Burpee machine is a continuously operating one. There is no stop-motion. The can travels continuously through the machine, and does not stop at any time.

This difference between the two machines, however, is not material to the controversy in question, in view of the pioneer character of the Jensen invention. Jensen has not claimed his invention as an intermittent or stop-motion machine. He merely illustrates that kind of a machine as one of the forms in which his invention can be embodied. The ultimate object he was seeking to obtain was the production of a machine which would automatically place the caps on filled cans, a thing which had never been done before. He illustrated in his drawings, as one form of machine for doing that thing, an intermittent machine, but when he came to frame his claims he did not limit them to an intermittent machine. The law requires an inventor to illustrate only one form of his invention, which must be the form which he conceives to be the best. After he has done that, he is entitled to make a claim which will cover all forms, if his invention be of a pioneer character. If his invention is not a pioneer invention, but merely an improvement over prior inventions, then the rule is entirely different, and he is limited to the par-

ticular form described and claimed and merely colorable evasions thereof.

The law on this subject is too clear to admit of doubt, and the leading case of *Morley Machine vs. Lancaster*, 129 U. S., 263, is conclusive of the point. Morley was the first in the art to produce an automatic machine for sewing shank buttons upon fabrics, a thing which had never been done before, except by hand. He showed only one form of construction in his patent, and then made a claim in the following language:

“The combination in a machine for sewing shank buttons to fabrics, a button-feeding mechanism, appliances for passing the thread through the eye of the button and locking the loop to the fabric, and feeding mechanism, substantially as set forth.”

This was a claim for the combination of (1) a button-feeding mechanism, (2) a stitching mechanism, (3) a fabric-feeding mechanism. *Only one particular form of each of those elements was shown in his patent*, but he was the first to combine those elements in any form, and by it he produced a new result—a machine for automatically sewing shank buttons on fabrics. He was a pioneer, and his claim received a broad construction. The defendant’s machine was entirely different in the form and details of those particular ele-

ments, though when combined they accomplished the same purpose. In deciding the case, the Supreme Court, through Mr. Justice Blatchford, said:

“Morley having been the first person who succeeded  
 “in producing an automatic machine for sewing but-  
 “tons of the kind in question upon fabrics, is entitled to  
 “a liberal construction of the claims of his patent. He  
 “was not a mere improver upon a prior machine which  
 “was capable of accomplishing the same general re-  
 “sult, in which case his claim would properly receive  
 “a narrower interpretation. This principle is well  
 “settled in the patent law both in this country and in  
 “England. Where an invention is one of a primary  
 “character, and the mechanical functions performed  
 “by the machine are, as a whole, entirely new, all sub-  
 “sequent machines which employ substantially the  
 “same means to accomplish the same result are in-  
 “fringements, although the subsequent machine may  
 “contain improvements in separate mechanisms which  
 “go to make up the machine.”

After discussion of various American and English cases, the court proceeded as follows:

“Applying these views to the case in hand, Morley  
 “having been the first inventor of an automatic button-  
 “sewing machine by uniting in one organization mech-  
 “anism for feeding buttons from a mass and delivering  
 “them one by one to sewing mechanism and to the  
 “fabric in which they are to be secured, and sewing  
 “mechanism for moving the fabric the required dis-

“ tance, another machine is an infringement in which  
 “ such three sets of mechanism are combined, provided  
 “ each mechanism, individually considered, is a proper  
 “ equivalent for the corresponding mechanism in the  
 “ Morley patent; and it makes no difference that in the  
 “ infringing machine the button-feeding mechanism is  
 “ more simple, and the sewing mechanism and the  
 “ mechanism for feeding the fabric are different in me-  
 “ chanical construction, so long as they perform each  
 “ the same function as the corresponding mechanism  
 “ in the Morley machine in substantially the same way,  
 “ and are combined to produce the same result. The  
 “ view taken on the part of the defendants, in regard to  
 “ the question of infringement, is that inasmuch as the  
 “ Lancaster machine uses different devices in its  
 “ mechanism which correspond to those referred to in  
 “ the first, second, eighth, and thirteenth claims of the  
 “ patent, those claims are to be limited to the special  
 “ devices described in the patent which make up such  
 “ combination, although both machines contain the  
 “ same group of instrumentalities which when com-  
 “ bined make up the machine. But in a pioneer patent,  
 “ such as that of Morley, with the four claims in ques-  
 “ tion such as they are, the special devices set forth by  
 “ Morley are not necessary constituents of the claim.  
 “ The main operative features of both machines are the  
 “ same.”

This case is decisive of the question in hand. The  
 parallel between the two is, in our opinion, exact.

The doctrine of this case was affirmed by the Su-  
 preme Court in *Miller vs. Eagle Mfg. Co.*, 151 U. S.,

207; *Royer vs. Schultz Belting Co.*, 135 U. S., 325, and many others.

Other decisions of the Supreme Court in the same line are, *Consolidated Valve Co. vs. Crosby Valve Co.*, 113 U. S., 157; *Machine Co. vs. Murphy*, 97 U. S., 120; *Sessions vs. Romadka*, 145 U. S., 29; *Clough vs. Barker*, 106 U. S., 160; *Winans vs. Denmead*, 15 How., 330; *McCormack vs. Talcott*, 20 How., 402; *Railway Co. vs. Sayles*, 97 U. S., 554.

In *Harmon vs. Struthers*, 67 Fed., 637, the circuit court of appeals for the third circuit says:

“Now, where the invention, as here, is one of a primary character, and the mechanical functions performed by the device are as a whole entirely new, the established rule is that all subsequent machines which employ substantially the same means to accomplish the same result are infringements.”

In the case of *Worswick Mfg. Co. vs. City of Buffalo*, 20 Fed. Rep., 126; it appears that the patentee, Sullivan, was the first to use a device for suspending the harness above the place occupied by the horse in an engine house, so that at a given signal the harness could be automatically dropped onto the horse, thereby saving the necessity of placing the harness on by hand. Prior thereto, the harness had been placed on by hand in the usual way, necessitating the loss of much valuable time

in the case of a fire alarm. Judge Coxe said of this invention:

“So far as the records of the patent office show, Sullivan was the first to enter this field of invention. No other patent, American or foreign, is introduced to anticipate or limit the claim referred to. It should, therefore, be construed broadly to cover any similar apparatus which suspends the harness in substantially the same manner. The details of construction, both in the harness and suspending apparatus, are non-essential inferior and subordinate to the principle embodied in the patent, which is the paramount and superior consideration. The man who first conceives the idea of suspending the harness and putting into successful practical operation is the one who confers the benefit and is entitled to the reward. It would be exceedingly illiberal and narrow construction to hold that he should be deprived of the fruits of his ingenuity by one who simply changed the form of the harness or of the device by which it is suspended.”

In *McCormick vs. Talcott*, 20 How., 402, it is said:

“The original inventor of a device or machine will have a right to treat as infringers all who make machines operating on the same principle and performing the same functions by analogous means or equivalent combinations, even though the infringing machine may be an improvement of the original and patentable as such.”



And in *Railway Co. vs. Sayles*, 97 U. S., 554, it is said:

“When an inventor precedes all others in a particular department and invents a new machine never used before, and procures a patent for the same, he acquires a monopoly as against all merely formal variations thereof.”

And further on in the same case (p. 556) it is said of pioneer inventors:

“In such cases, if one inventor precedes all the rest and strikes out something which includes and underlies all that they produce, he acquires a monopoly and subjects them to tribute.”

The law of England on the subject is the same as that of the United States, as was clearly pointed out by Chief Justice Taney in *O'Reilly vs. Morse*, 15 How., 62.

Thus, in the case of *Curtis vs. Platt*, reported in a note to *Adie vs. Clark*, 3 Ch. Div., 134, Vice Chancellor Wood said:

“When the thing is wholly novel, and one which has never been achieved before, the machine itself which is invented necessarily contains a great amount of novelty in all its parts; and one looks very narrowly and very jealously upon another machine for effecting the same object to see whether or not they

“are merely colorable contrivances for evading that which has been done before. When the object itself is one which is not new, but the means only are new, one is not inclined to say that a person who invents a particular means of doing something that has been known to all the world before has a right to extend very largely the interpretation of those means which he has adopted for carrying it into effect.”

These views were affirmed on appeal in an opinion delivered by Lord Chancellor Westbury.

Similar views were announced in the case of *Badische Anilin und Soda Fabrick vs. Levinstein*, 24 Ch. Div., 156, in an opinion rendered by Mr. Justice Pearson. On appeal to the court of appeal (29 Ch. Div. 366) the decree was reversed; but on appeal to the House of Lords (12 App. Cas., 710) the decision of the court of appeals was reversed, and the decision of Mr. Justice Pearson affirmed.

In the case of *Proctor vs. Bennis*, 36 Ch. Div., 740, decided by the English court of appeal, it was said by Lord Justice Bowen:

“I think it goes to the root of this case to remember that this is really a pioneer invention; and it is in the light of that, as it seems to me, that we ought to consider whether there has been variations or omissions and additions which prevent the machine, which is complained of, from being an infringement of the plaintiff’s. With regard to the additions and

“ommissions it is obvious that additions may be an improvement and that omissions may be an improvement; but the mere fact that there is an addition, or the mere fact that there is an omission, does not enable you to take the substance of the plaintiff’s patent. The question is not whether the addition is material or whether the omission is material, but whether what has been taken is the *substance and essence of the invention.*”

The precise point of the decision is that a patent for a combination of known mechanical contrivances, producing a new result never produced before (as for instance, we say, automatically capping filled cans) is infringed by a machine which produces the same result, by a combination of mechanical equivalents, with such alterations and omissions as do not prevent the new machine from being one which takes the substance and essence of the patented invention. This rule seems to fit precisely the case at bar. It is admitted that Jensen was the first in the art to produce a machine for automatically capping filled cans, and the machine which he illustrated in his patent for that purpose shows certain details of mechanical construction. The defendants have made certain alterations, modifications and additions to those elements, and produced a machine for accomplishing the same purpose in a better and more efficient way, as they claim, but in doing that

*they have utilized the substance and essence of the Jensen invention.* Their machine contains all the fundamental elements of the Jensen, but in a modified and altered form as to the mere details of construction. The outward appearance is different, but the internal and basic principle is the same. It is merely the case of the same soldier in a different uniform.

In view of the law as announced by the foregoing cases it is idle to contend that Jensen's patent is limited to an intermittent machine, taken as a whole, and that a continuously operating machine cannot infringe it.

That the continuously operating machine of Letson & Burpee is faster than a Jensen intermittent machine, that is to say, will cap more cans in a given time, we are not disposed to deny. Such contention is put forward by the learned counsel for defendant, and it may possibly be true. We care not if it is. The fact is immaterial. It is too well settled to admit of discussion that this would not alone and of itself avoid infringement. Infringing machines are generally improvements on a patented machine, because the infringer has the benefit of all the experience given to the world by the patentee, and it would be remarkable if skilled and expert mechanics could not improve a known machine

so as to make it work faster. The original machine is seldom or never the best form in which the invention may be embodied, and we have Lord Coke as authority for the maxim, *Nihil simul inventum est et perfectum* (Co. Lit. 230a). The credit due to Mr. Jensen is not that he made a machine which would cap *more* filled cans than any other machine, but that he was the first in the art to build a machine that would cap *any* filled cans *at all*. He demonstrated that as early as January, 1887, and the machine he produced has proven to be a remarkable <sup>e</sup>success and has conferred an inestimable boon upon the great salmon canning industry of the Pacific Coast, helping to build it up to its present magnificent proportions and thereby benefit the entire world where such products are sold. Eleven years afterwards, when the salmon canning industry had attained its zenith, Letson & Burpee came from the British Colonies into the State of Washington, and taking advantage of the knowledge that had been given to the world by Jensen in this line, made an improvement upon his machine, which is capable of capping twenty-five per cent. more cans in a given time. That they may be entitled to some credit for making a faster machine we are not disposed to deny, but we do deny most emphatically that they are entitled to use Mr. Jen-

sen's fundamental ideas in producing this improvement, or, to use the words of Mr. Justice Bowen above quoted, to appropriate "the substance and essence of the invention" made by Jensen. We believe that this court will follow the rulings made by the Supreme Court of the United States and the House of Lords of England in that regard.

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### QUESTION OF INFRINGEMENT.

This is the last question to be considered in the case, and in handling it we take up the infringed claims *seriatim*.

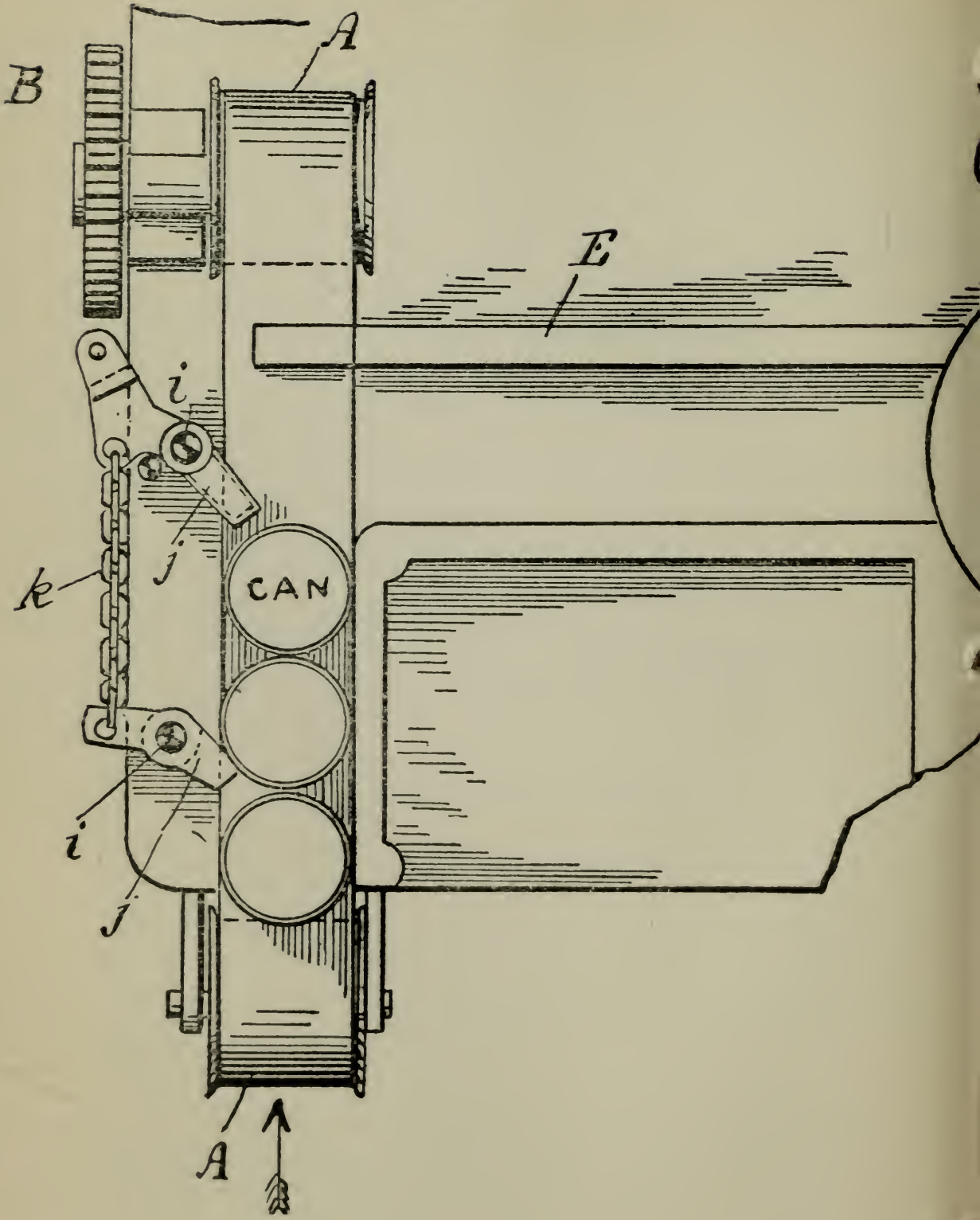
#### INFRINGEMENT OF CLAIM 1.

*1. An endless travelling carrying belt, a stop E, extending across it to change the direction of the cans, and arms swinging over the belt whereby the delivery of the cans from the belt to the feeder is rendered exact, substantially as described.*

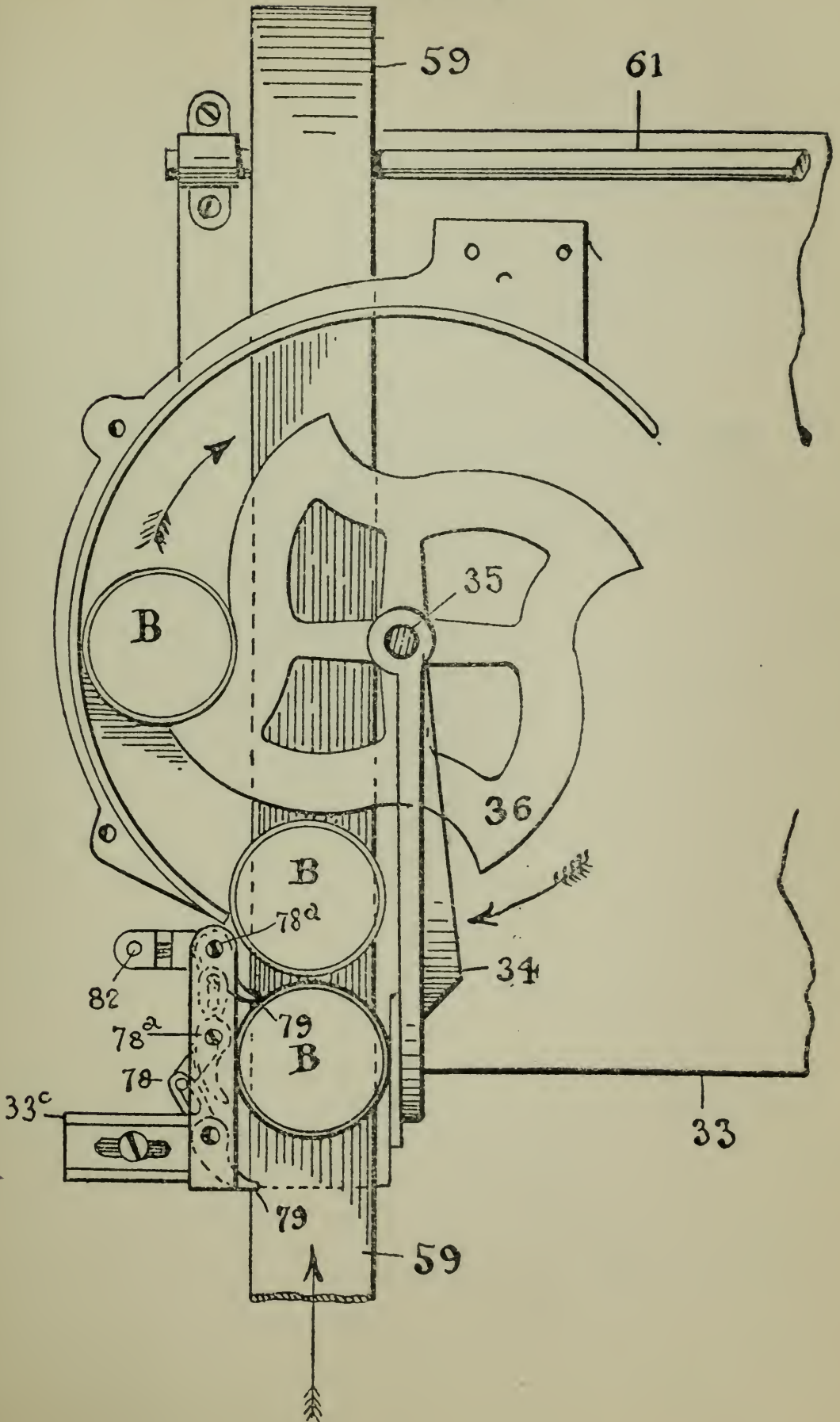
The elements of this claim are the belt, the stop, and the swinging arms. The function of the claim is the supplying of the cans to the feeder, and that is done by the combination of instrumentalities specified. The claim is a sub-combination, *i. e.*, a combination not com-



Jensen.









prising the whole machine, but only certain elements for the purpose of accomplishing one of the steps in the operation of the machine, viz: the supplying of the cans to the feeder preparatory to the ultimate capping operation. Of course it is apparent at a glance that such a sub-combination can be used either in a stop-motion machine or a continuous one.

Regarding the first element there can be no question. Both machines have endless traveling carrying belts operating in exactly the same way to accomplish exactly the same function.

Nor can there be any question concerning the third element, viz: "Arms swinging over the belt whereby the delivery of the cans from the belt to the feeder is rendered exact." Both machines have such arms operating in the same way and accomplishing the same result. These arms are really spacing devices used for the purpose of preventing the cans from crowding and thereby insuring the delivery of only one can at a time. By being interposed between the cans, they separate the cans and allow only one at a time to be delivered to the feeder, and thereby "the delivery of the cans from the belt to the feeder is rendered exact."

On the adjoining pages will be found two cuts marked "Cut X," one representing the Jensen and the

other the Leston & Burpee device illustrating the first claim. In the Jensen device the swinging arms are marked jj. Being interposed in the path of the moving cans, they separate said cans and prevent them from crowding against the stop E, thereby rendering the delivery of the cans from the belt to the feeder exact. These arms jj, are connected by intervening mechanism to the feeder and to the driving shaft, and the motions of these various parts are so timed that at the precise moment when a can is needed to be carried away by the feeder, *one*, and *only one* such can will be delivered at that particular time, while the rest of the cans on the belt will be held back by the swinging arms. Exactly the same function is performed in the Letson & Burpee device by mechanism operating in substantially the same way. There the swinging arms are designated by the figures 79, and, as can be clearly seen from the drawing, they perform the same function and in the same way as the arms of the Jensen patent.

The third element of claim 1 is specified as "A stop " E, extending across it (the belt) to change the direction of the cans." It is contended by the defendants that they have no such stop in their machine. Whether or not they have in their machine a device technically called "a stop," and that is the extent of the argument,

is not the material point for consideration. The question is whether they have in their machine *a device which performs substantially the same function as the Jensen device, called by him a stop, i. e., a mechanism extending across the belt to change the direction of the cans.* We care not whether such device be called a "stop" or by any other name. In patent law the material inquiry is as to the function and mode of operation of a thing, not as to its name. While names may aid us sometimes in determining the nature of a thing, it is not an infallible test, and the function of a thing cannot be changed by changing its name.

Said Mr. Justice Clifford in the case of *Machine Co. vs. Murphy*, 97 U. S., 120:

"In determining the question of infringement, the court or jury, as the case may be, are not to judge about similarities or differences by the names of things, but are to look at the machines or their several devices or elements in the light of what they do, or what office or function they perform, and how they perform it, and to find that one thing is substantially the same as another if it performs substantially the same function in substantially the same way to obtain the same result, etc., etc."

In the light of this language let us see if the Letson & Burpee stop is not the equivalent of Jensen's.

As stated above, the function of Jensen's stop E is to change the direction of the cans. The form shown in his drawing is a plain transverse bar extending across the belt. When the can body impinges against this bar, further forward motion of the can-body is stopped or arrested, and at the same instant the feeder grasps it and changes its direction of motion by sweeping it transversely from the belt.

In the Letson & Burpee machine there is a corresponding device which accomplishes the same purpose in substantially the same way. That device consists of the rim of the wheel indicated in the drawing by the figure 36. This wheel rotates in the line of the arrows on the shaft 35. It is a skeleton wheel having semi-circular recesses or pockets formed in its periphery, into which the can-bodies are fed and there held. The wheel extends transversely across the belt and in the position shown in the cut, which is the position illustrated in the Letson & Burpee patent drawing, it will be seen that a portion of the rim of the wheel extends transversely across the belt immediately in front of the can in substantially the same way as the transverse bar, except that it is not stationary. The moving can-bodies strike against this obstruction, and the inevitable result is to arrest or retard the forward

motion of the can. It is true that the can does not come to a dead stop, as in the Jensen device, because of the curvature in the rim of the wheel 36, which is constantly moving. The actual result, however, is that the motion of the can-body is retarded and arrested until the recess in the wheel comes around and grasps the can-body and transversely sweeps it from the surface of the belt. It practically "stops" further forward motion of the can, by retarding the same until the recess reaches the can and sweeps it from the belt. We submit, therefore, that the functions of the two devices are the same. It may be true that in the Leston & Burpee machine there is not a technical "stop," inasmuch as the device does not effectuate an absolute dead stop of the can-body, but nevertheless the fact remains that it does to the can-body exactly the same thing that is done to the can-body by the Jensen stop, viz: it arrests the forward motion of the can-body and changes its direction by causing it to be swept off of the belt transversely. When two devices do substantially the same thing in substantially the same way, they are mechanical equivalents, although they may be called by different names or may be of different form and details of construction. The fact that Leston & Burpee's wheel is rotary, while Jensen's stop is stationary, is immate-

rial, because the claim does not necessarily call for a stationary stop. It merely calls for "a stop E," and such a stop may be either stationary or moving.

Nor is it a material fact that the Letson & Burpee wheel acts as a feeder as well as a stop. So long as it has the function of a stop, it matters not how many additional functions it has.

In regard to this claim we call the court's attention to the fact that it is one for a pioneer invention. Mr. Jensen was the first in the art to use such a combination. Prior to his invention no device, of any kind, shape or form, was known or used for feeding filled cans to an automatic capping machine. Prior to him filled cans had not been automatically capped by any kind of a machine, but only by hand. Consequently, this claim is entitled to a broad and liberal construction under the doctrine of *Morley Machine Co. vs. Lancaster*, 129 U. S.

It may possibly be contended that because the claim refers to the stop by letter, calling it a "stop E," therefore the claim is limited to such specific form of stop. The argument is unsound. There have been cases, it is admitted, where the courts have held that an element of a claim must be limited to the specific form shown, when said element is designated by a specific letter or



figure; but this only applies when the invention is a narrow one and a mere improvement over prior devices. It does not apply where the claim is for a pioneer invention. If an inventor makes a pioneer invention, which he illustrates in his drawing by letter, he may claim it by such letter in his claim, and yet his claim will be just as broad in contemplation of law as though he had framed the claimed in broad generic language. Indeed, the reading of the law would imply that it is the duty of a patentee to claim his invention in the precise form shown in his drawing, whether his invention be broad or narrow, pioneer or improvement. The law is embodied in section 4888 of the revised statutes, which reads as follows:

“ Before any inventor or discoverer shall receive a  
 “ patent for his invention or discovery, he shall make  
 “ application therefor in writing to the commissioner  
 “ of patents, and shall file in the patent office a written  
 “ description of the same and of the manner and pro-  
 “ cess of making, constructing, compounding and using  
 “ the same in such full, clear, concise and exact terms  
 “ as to enable any person skilled in the art or science  
 “ to which it appertains or with which it is most nearly  
 “ connected, to make, construct, compound, and use  
 “ the same; *and in case of a machine he shall explain*  
 “ *the principle thereof and the best mode in which he*  
 “ *has contemplated applying that principle so as to dis-*  
 “ *tinguish it from other inventions; and he shall par-*

*“particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery.”*

According to the italicized portion of the above section, it would appear that the inventor must claim his invention in the form shown and illustrated. If the particular part he claims is designated by a letter, then he can claim it by such letter. In that way he would “particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery.” He might likewise claim it by the particular name or designation which he has applied to it in his specification. But in both cases, if his invention is a pioneer one, he would be entitled to a broad and liberal doctrine of equivalents.

But however that may be, as an abstract proposition of law, it is too well settled to admit of question that the use of reference letters or figures in a claim for a pioneer invention does not necessarily operate as a limitation, although the rule is different in the case of a claim for a narrow invention.

This point of law was considered by the court of appeals of the sixth circuit in the case of *McCormick Harvesting Mch. Co. vs. Aultman et al.*, 69 Fed. Rep., 393. There the claims in question used reference let-

ters, but that was held to be no limitation, in view of the pioneer character of the invention.

In an elaborate opinion rendered by Judge Taft it was said concerning these claims:

“ It is further pressed upon the court that the mere  
“ fact that the claims of the Gorham patent are ex-  
“ pressed by reference to the lettered parts of the ma-  
“ chine, as shown in the drawings, must lead to a literal  
“ and formal construction of the claims, and limit their  
“ scope exactly to the form of the device used and sug-  
“ gested by Gorham. This was the view of the learned  
“ justice who delivered the opinion in the court below,  
“ and he cited the cases of *Weir vs. Morden*, 125 U. S.,  
“ 106, and *Hendy vs. Iron Works*, 127 U. S., 375, in  
“ support of his conclusion. We are unable to concur  
“ in this application of those cases. They did not in-  
“ volve pioneer or even meritorious patents. They  
“ were for devices which were at the best mere im-  
“ provements on previous well known devices, and, no  
“ matter what the claims had been, they would have  
“ been limited to the particular forms therein describ-  
“ ed. In the latter case, the court found that there was  
“ no invention or patentability in the elements claimed  
“ and, as an additional reason for holding the patent  
“ invalid, suggested that the element claimed was link-  
“ ed in combination with a particular form of cylinder  
“ by letter reference to the drawings, and, therefore, in  
“ such a case, the combination was limited to the par-  
“ ticular character of the cylinder. Certainly neither  
“ of these cases established a hard and fast rule that  
“ where a patentee claims a combination of certain ele-

“ments shown in his patent, describing them by refer-  
 “ence letters in the drawings, he thereby deprives him-  
 “self of the benefit of the liberal doctrine of equivalents  
 “applicable to pioneer patents, if otherwise he is en-  
 “titled to its application. See *Delemater vs. Heath*,  
 “20 U. S. App., 14, 7. C. C. A., 279, 58 Fed., 414.  
 “Whether he specifically claims in his patent the  
 “benefits of equivalents or not the law allows  
 “them to him according to the nature of his  
 “patent. If it is a mere improvement on a  
 “successful machine, a mere tributary invention,  
 “or a device the novelty of which is con-  
 “fined by the past art to the particular form shown,  
 “the range of equivalents is narrowly restricted. If it  
 “is a pioneer patent with a new result, the range is very  
 “wide, and is not restricted by the failure of the  
 “patentee to describe and claim the combinations of  
 “equivalents. Nothing will restrict the pioneer paten-  
 “tee’s rights in this regard save the use of language in  
 “his specifications and claims which permits no other  
 “reasonable construction than one attributing to the  
 “patentee a positive intention to limit the scope of his  
 “invention in some particular to the exact form of the  
 “device he shows, and a consequent willingness to  
 “abandon to the public any other form, should it be  
 “adopted and prove useful. Instances of such a limi-  
 “tation may be found in *Keystone Bridge Co. vs. Phoe-*  
 “*nix Iron Co.*, 95 U. S., 274, and in *Brown vs. Manu-*  
 “*facturing Co.*, 6 U. S. App., 427, 16 U. S. App., 234,  
 “6 C. C. A., 528, 57 Fed., 731. But there is no such  
 “limitation in the patent under discussion, and the rule  
 “applies which was so fully explained in *Winans vs.*  
 “*Denmead*, 15 How., 330, where the court said:

“ ‘Patentees sometimes add to their claims an express declaration to the effect that the claim extends to the thing patented, however its form or proportion may be varied. But this is unnecessary. The law so interprets the claim without the addition of these words.’ ”

The syllabus of the case on this point is as follows:

“ The mere use of reference letters in the claims of a combination patent does not of itself, where the invention is really of a primary and pioneer character, limit the scope of the claims to the exact form shown. On the contrary, nothing will restrict a pioneer patentee’s rights, save the use of language in his specifications and claims which permits of no other reasonable construction than that he positively intended to limit the scope of his invention to the particular form shown, thus indicating a willingness to abandon to the public any other form.”

The question was again examined by the court in the case of *National Hollow Brake Beam Co. vs. Interchangeable Brake Beam Co.*, 106 Fed. Rep., 714, where the claim under discussion uses numerals in designating certain elements.

In the opinion rendered by Judge Sanborn it is there said:

“ Finally it is said that the patent is limited to the precise geometrical form of end caps shown in the specification and drawings, by the fact that the figure

“8’ appears after the words ‘end caps’ in the claim.  
 “There are cases wherein the form of a device is the  
 “principle of the invention. There are other cases  
 “wherein the state of the prior art and the specific  
 “terms of the specification and drawings leave no  
 “doubt of the intention of the applicant to restrict his  
 “claim to the specific form of the device or element he  
 “points out. In such cases claims of patents are some-  
 “times limited to the specific forms of the devices  
 “pointed out by letters or numbers in the claims or  
 “specifications. (*Weir vs. Morden*, 125 U. S., 98, 107;  
 “*Railroad Co. vs. Kearney*, 158 U. S., 461, 469; *Craw-*  
 “*ford vs. Heysinger*, 123 U. S., 589; *McCormick Har-*  
 “*vesting Mach. Co. vs. Aultman, Miller & Co.* (C.  
 “C.), 58 Fed., 773; *Newton vs. Manufacturing Co.*,  
 “119 U. S., 373; *Bragg vs. Fitch*, 121 U. S., 478; *Dry-*  
 “*foos vs. Wiese*, 124 U. S., 32; *Hendy vs. Iron Works*,  
 “127 U. S., 370, 375). But this is not a case of that  
 “character. The form of the caps and the specific me-  
 “chanical devices by which they should be locked with  
 “the brake-head and brake beam were immaterial to  
 “the principle of this invention. Caps of many forms,  
 “many obvious mechanical devices for fastening them  
 “to the compression member, the brake-heads and the  
 “brake beams, and preventing these elements from ro-  
 “tating upon each other, would perform the same  
 “function in the combination of the patentee as those  
 “which he pointed out. The specification, the draw-  
 “ing, and the claim show that the patentee was not  
 “ignorant of this fact, nor of the law by which this pat-  
 “ent must be interpreted. He never claimed the form  
 “of his caps as a part of his invention. He never de-  
 “scribed in his specification or drawing as an essential

“ part of his invention or of the caps themselves, those  
 “ peculiarities in the caps by the omission of which the  
 “ appellee seeks to escape infringement.

“ The description in a specification or drawing of  
 “ details which are not, and are not claimed as, es-  
 “ sential elements of a combination, is the mere point-  
 “ ing out of the better method of using the invention.  
 “ (*City of Boston vs. Allen*, 91 Fed., 248, 249, 33 C. C.  
 “ A., 485, 486). A reference in a claim to a letter or  
 “ figure used in the drawing and in the specification  
 “ to describe a device or an element of a combination  
 “ does not limit the claim to the specific form of that  
 “ element there shown, unless that particular form was  
 “ essential to, or embodied the principle of, the im-  
 “ provement claimed. (*Sprinkler Co. vs. Koehler*, 82  
 “ Fed., 428, 431, 27 C. C. A., 200, 203, 54 U. S. App.,  
 “ 267, 272; *McCormick Harvesting Machine Co. vs.*  
 “ *Aultman, Miller & Co.*, 69 Fed., 371, 393, 16 C. C.  
 “ A., 259, 281, 37 U. S. App., 299, 343; *Muller vs. Tool*  
 “ *Co.*, 77 Fed., 621, 23 C. C. A., 357, 47 U. S. App.,  
 “ 189; *Delemater vs. Heath*, 58 Fed., 414, 424, 7 C. C.  
 “ A., 279, 284, 20 U. S. App., 14, 30; *Reed vs. Chase*  
 “ (C. C.), 25 Fed., 94, 100; *Walk. Pat.* (3d Ed.), Sec.  
 “ 117a). That interpretation which sustains and vitil-  
 “ izes the grant should be preferred to that which  
 “ strikes down and paralyzes it. (*Reece Button Hole*  
 “ *Mach. Co. vs. Globe Button Hole Mach. Co.*, 61  
 “ Fed., 958, 962, 10 C. C. A., 194 198, 21 U. S. App.,  
 “ 244, 363; *Consolidated Fastener Co. vs. Columbian*  
 “ *Fastener Co.* (C. C.), 79 Fed., 795-798; *American*  
 “ *Street Car Advertising Co. vs. Newton Street*  
 “ *Railway Co.* (C. C.), 82 Fed., 732, 736; *McSherry*  
 “ *Mfg. Co. vs. Dowaijiac Mfg. Co.*, 41 C. C. A., 627,

“ 101 Fed., 716, 722). One who appropriates a  
 “ new and valuable patented combination cannot es-  
 “ cape infringement by uniting or operating its ele-  
 “ ments by means of common mechanical devices  
 “ which differ from those which are pointed out for  
 “ that purpose, but which are not claimed in the patent.  
 “ (*Deering vs. Harvester Works*, 155 U. S., 286, 302;  
 “ *City of Boston vs. Allen*, 91 Fed., 248, 249, 33 C. C.  
 “ A., 485, 486; *Schroeder vs. Brammer* (C. C.), 98  
 “ Fed., 880).”

And the syllabus of the case on this point is as follows:

“ A reference in a claim of a patent to a letter or figure used on the drawing and in the specification to describe a device or an element of a combination does not limit the claim to the specific form of that device or element there shown, unless the particular form was essential to, or embodied the principle of, the improvement claimed.”

Other cases deciding this point are:

*Sprinkler Co. vs. Koehler*, 82 Fed. R., 428.

*Muller vs. Tool Co.*, 77 Id., 621.

*Delemater vs. Heath*, 58 Id., 414.

*Reed vs. Chase*, 25 Id., 94.

In view of the rule of law announced in the cases cited, it follows that the stop called for by Jensen's claim 1 is not necessarily limited to “the stop E”—that



is to say, to a stop consisting of a stationary bar, but includes and covers any and all forms of stop which perform the same function in the same manner. That function is "to change the direction of the cans," and this function is performed by the Letson & Burpee stop, which consists of a skeleton wheel.

The Jensen claim 1 must be construed as though it read as follows:

"An endless traveling carrying-belt, *a device* extending across it to change the direction of the cans, and arms swinging over the belt, whereby the delivery of the cans from the belt to the feeder is rendered exact, substantially as herein described."

Such is the real scope of the invention covered by the claim, and if it had been so worded, even the technical and learned counsel for defendants could have urged nothing against it.

Of course we recognize the fact that the *particular form* of stop shown in the Jensen drawings is different from that of Letson & Burpee. The first is a bar extending across and above the carrying belt; the second is a skeleton wheel rotating across and above the carrying belt. But both of them perform the same function of stopping or arresting the further forward movement of the cans and changing their direction by

interposing an obstacle in the path of the cans. To that extent they are mechanical equivalents, in view of the primary character of the Jensen invention.

But it may be urged that the Letson & Burpee "wheel 36" does more than to stop the forward motion of the cans, in that it also acts as a feeder to sweep the cans from the belt and convey them to the capper, whereas in the Jensen patent a separate device is used as the feeder. This contention in no way affects the question at issue. It matters not how many other functions the defendants' wheel 36 performs, so long as it performs the function of Jensen's stop E. It may be an improvement over Jensen, may operate as a better device, but still the fact remains that it is a stop, a device to change the direction of the cans.

Mr. Robinson, at Sec. 251 (Vol. I) of his work on patents, says: "Again, equivalence is not affected by "the fact that the new element performs in the invention some function in addition to the old"; and in *Atlantic Giant Powder Co. vs. Goodyear*, 3 B. & A., 161, it is said by Judge Sprague that "the books are full "of such cases."

It is not infrequently the case that an infringing device is an improvement on the patented structure. That is the excuse usually advanced by the infringer as a palliation for his wrong-doing, but a patented in-

vention cannot be appropriated by an infringer merely by adding improvements thereto. Said the supreme court in *Burt vs. Ivory*, 133 U. S., 358:

“ A new idea may be ingrafted upon an old invention, be distinct from the conception which preceded it, and be an improvement. In such case it is patentable. The prior patentee cannot use it without the consent of the improver, and the latter can not use the original invention without the consent of the former.”

A perfect illustration of this doctrine is found in the two cases of *Clough vs. Barker*, 106 U. S., 166, and *Clough vs. Manufacturing Co.*, 106 U. S., 178. Clough's second claim covered the combination of a regulating valve with a perforated bat-wing burner and surrounding tube in a lamp. He was the first in the art to apply a valve arrangement of any kind in such combination. Hence he was a pioneer, and his claim was broadly construed to cover all valve regulations, whatever might be their form of construction, in such a combination.

The defendant had secured a subsequent patent, showing *a specific form* of valve regulation in such a combination, which form was different from that of Clough. Yet it was held to be an infringement, and in

the first of the two cases cited Clough was awarded an injunction.

It appears, however, that the defendant's subsequently invented specific form of valve regulation was better than the form shown in the Clough patent, and Clough began to use the same. Thereupon the defendant in the first case sued Clough and secured an injunction preventing him from using said specific form. Thus we see that Clough enjoined Barker from infringing the Clough patent for the pioneer invention, and Barker enjoined Clough from infringing the Barker patent for the improved form.

And so here, the Jensen device is a *genus* invented by Jensen; the Letson & Burpee device is a particular *species* of that genus invented by Letson & Burpee. Neither one can infringe upon the other. Jensen cannot use the Letson & Burpee device, although such device is an infringement of his patent. Letson & Burpee cannot use their own device, because it is an infringement of the Jensen patent. This is a well recognized principle of patent law and was fully discussed and passed upon in the case of *Bowers vs. Von Schmidt*, hereinabove referred to.

It is applicable to the case in hand. Jensen made a generic invention; Letson & Burpee, eleven years af-

terwards, made an improvement thereon, consisting of a new species, exhibiting the basic principle of Jensen's, but differing in details of mechanism. But this subsequent invention is subordinate and subject to the Jensen.

The lower court found against us on this claim 1 and we submit that such ruling was error.

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### INFRINGEMENT OF CLAIM 3.

3. *In combination with a transverse belt, the feeder having projecting arms, between which the cans are received from the belt, and the actuating devices by which the motions of the feeder are produced, substantially as herein described.*

This claim contains no reference letters. Its language is broad and generic, and ought to satisfy the most hypercritical. Its elements are: (1) The belt; (2), the feeder; (3), actuating devices, forming a combination covering a primary invention. Like claim 1, it is for a sub-combination, relating only to the disposition of the cans prior to the capping operation; but it is broader than claim 1.

The Letson & Burpee machine contains all the elements of this claim 3, combined together in substantially the same manner and accomplishing the same re-

sult, viz: *the automatic delivery of filled cans to the capping mechanism.*

The first element, a transverse belt, is certainly found in the Letson & Burpee machine.

The second one, the feeder having the projecting arms between which the cans are received from the belt, is likewise found in the Letson & Burpee machine, though in a slightly different form from that shown in the Jensen drawings.

For convenience we herewith reproduce the two feeders and show them on adjoining page.

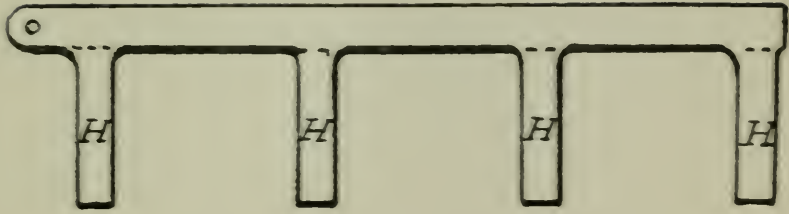
In the Jensen device the can is received between the arms HH, and by them carried away to the capping mechanism.

In the Letson & Burpee device the can is received in the recess C, between the parts lettered HH, and by them carried away to the capping mechanism.

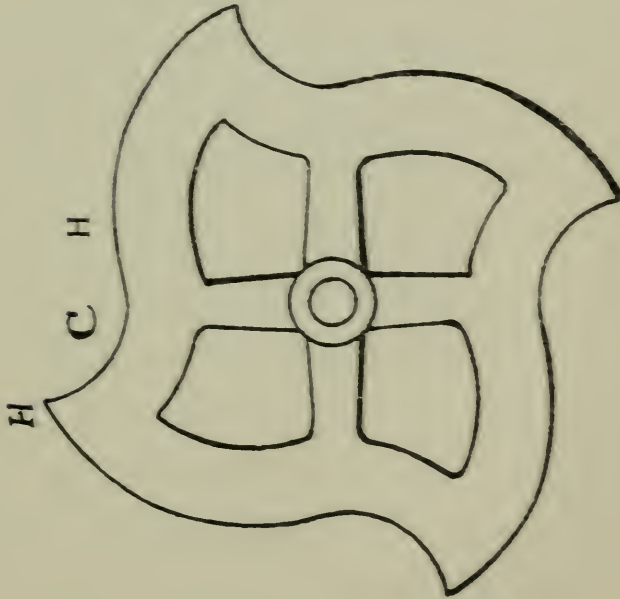
Those parts are essentially "projecting arms between which the cans are received." Plainly, they are mechanical equivalents of Jensen's arms. In both devices the can is caught between these arms and by "a circular sweeping" motion removed from the belt to the capping mechanism.

It is no answer to say that defendant's feeder is circular in form, while Jensen's is rectangular, and that

Jensen Feeder.



Letson & Burpee Feeder.

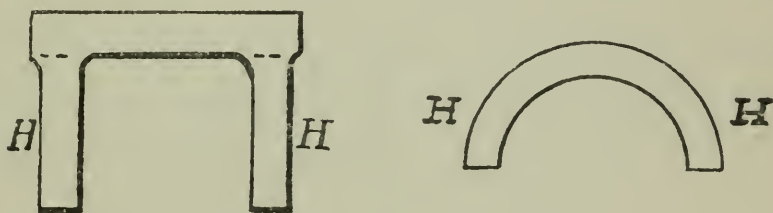






the can receptacles in Jensen's are square, while those of Letson & Burpee are round.

For the purposes of still further elucidation, cut out one of the recesses in the Jensen feeder and one of the recesses in the Letson & Burpee feeder, and place them side by side. They will present substantially the following forms:



The sole and only difference between the two devices is one of form. One is square, while the other is semi-circular. This does not effect any change of function. Jensen's might as well have been semi-circular and Letson & Burpee's might as well have been square. No different function would have been effected. Change the recess in Jensen's feeder to a semi-circular form, and it will act precisely as before. Change Letson & Burpee's to a square, and it also will act as before. Form is not of the essence of the device.

Authorities are not wanting on this precise point. Thus, in *Brush vs. Condit*, 132 U. S., 39, it was held

that a square clamp for a carbon rod in an electric lamp was the equivalent of a circular clamp.

In *Electric Co. vs. Julien*, 38 Fed. Rep., 145, it was ruled by Judge Coxe, as follows:

“Neither can there be anything patentable in the mere shape of the holes. A patent for a device containing round holes will preclude a subsequent patent for the same device with square or triangular holes.”

Similar rulings were made in *U. S. Bunging Co. vs. Independent B. & B. Co.*, 31 Fed. Rep., 79. and *Moore vs. Clay*, 65 Fed. Rep., 526.

The formal difference between the Jensen and Letson & Burpee feeder is that one has *square*, while the other has *round* receptacles (holes) for the cans.

Nor is it any defense to contend that the Jensen feeder has an elliptical motion, while the Letson & Burpee feeder has a true circular motion, because the claim does not call for any particular kind of motion, and each of the kind referred to is within the language of the claim.

The remaining element of claim 3 is “the actuating devices by which the motions of the feeder are produced.”

Both feeders have actuating devices which produce “a circular sweeping motion,” and that is all that is

required. We admit a difference in form and details, but the claim calls for no particular form. It includes and covers any and all forms of mechanism, which will impart to the feeder "a circular sweeping motion," and it is utterly immaterial whether that motion be truly circular or elliptical. Indeed the motion of defendants' feeder is strictly within the literal language of Jensen's patent. It is there said: "These cranks have vertical shafts, which are journaled in the frame, and power is applied to move them, so that they produce *a circular sweeping motion* of the feeder or carrier and forked arms. By this motion the cans are moved across the table."

What language could be adopted which would more accurately apply to the motion of Letson & Burpee's feeder?

Concerning this claim, defendants' counsel says at page 71 of his brief:

"To make any pretense that the defendants' machines or any of them infringe the foregoing claim is as monstrous as it is absurd and ridiculous."

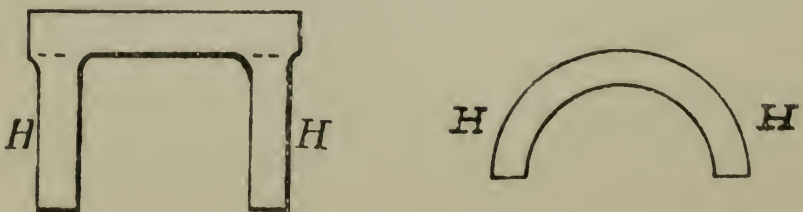
Other language of similar import is found scattered throughout his brief, and the opinions given by our experts are characterized as "so manifestly absurd that no court would give them any serious consideration."

Such language, we venture to remark, is out of keeping with the dignity of the occasion. It may possibly be intended to bolster up a weak defense, but certainly cannot be taken as evidence of a strong one. It is neither courteous to opposing counsel, nor fair to the court.

Immediately following it, on page 71, are given the reasons for asserting that there is no infringement of this claim 3. It is there said:

“There is no feeder having the projecting arms between which the cans are received from the belt in the defendants’ machine, and never has been.”

In answer, we assert that there is in said machines a feeder, consisting of the wheel 36; that this wheel has semi-circular recesses in its periphery, into which the cans are received, and the projecting walls or sides of these recesses are the mechanical equivalents of the projecting arms of the Jensen feeder, because both devices perform the same function, to wit: acting as receptacles for the cans, and in the same way, to wit: by partially enclosing the cans. We again reproduce here cuts of the two receptacles, viz:



Will the counsel assert that these two figures are not mechanical equivalents?

It is next said on page 71 of said brief: "No device " or devices of the defendants' machine performs the " operation that the feeder F performs, or that has its " motions produced by the actuating devices that pro- " duce the motions of feeder F."

In answer to the first clause of the above sentence, we contend that the operation of the feeder F is simply to transfer the cans from the belt to the capping mechanism. It is a *carrier*, nothing else. Indeed, the patent calls it " the feeder or "*carrier F.*" That is the sole object, the sole function of the Feeder F. Now it would indeed be a bold man who would assert that the Letson & Burpee feeder 36 does not perform that identical function. *That is exactly what it does do.* Hence, it is easy to see the fallacy of counsel's assertion that "no " device or devices of the defendants' machine performs " the operation that the feeder F performs."

Concerning the second clause of the counsel's sentence quoted *supra*, viz: "or that has its motions pro- " duced by the actuating devices that produce the mo- " tions of feeder F," we freely admit that the specific form of actuating mechanism of Jensen is different from that of defendants. But that fact is of no mo-

ment. Jensen lays no claim to invention in the form of his actuating mechanism. Such form is no part of his invention. It was old in the art before him. He devised a feeder or carrier for transferring the cans from the belt to the capping mechanism by "a circular sweeping movement." An actuating mechanism was necessary therefor. He found such mechanism old in the art and used it. He might have used other forms, if he had so desired. His claim calls generally for "actuating devices," and any and all forms which will produce "a circular sweeping motion of the feeder," are within its purview.

Will the learned counsel say that the Letson & Burpee feeder wheel 36, has not a circular sweeping motion, or that it has not "actuating devices" for producing such motion? If not, he cannot deny infringement of claim 3. That claim covers broadly the combination with a transverse belt of *any* kind of feeder, which has projecting arms and a circular sweeping motion, and *any* kind of actuating devices which will produce such circular sweeping motion. *The reason for this is that such a combination was absolutely new in the art, and defines accurately the scope of the actual invention made by Jensen.* This brings the case directly within the ruling of *Morley Machine Co. vs. Lancas-*

ter; and in view of so exalted an authority as the highest court in the land, will the learned counsel still insist that our charge of infringement of claim 3, "is as "monstrous as it is absurd and ridiculous"?

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#### INFRINGEMENT OF CLAIM 5.

5. *The inclined chute into which the caps are placed and a stop extending across said chute, so as to prevent the caps from moving downward, in combination with a trigger extending across the path of the cans, as they are moved toward the capping table, said trigger being connected with the stop, so that as it is moved backward by the passage of the can, it withdraws the stop to allow a cap to move down the chute, substantially as herein described.*

This is a broad and comprehensive claim covering a pioneer invention of remarkable ingenuity and undoubted merit. The essence of the claim consists in the releasing of the caps by the can itself so that each can automatically supplies its own cap. Prior to Jensen this had never been done, but the caps had been always supplied by hand. This claim is the first in the history of the art where the can, by its own motion, au-

tomatically releases from a collection of caps, its own particular cap, ready for the capping operation.

The elements of the claim are, (1) a cap-carrying chute; (2) a stop extending across the chute to regulate the movement of the caps; (3) a trigger in the path of the cans; (4) connecting mechanism between the trigger and the stop, all so combined and arranged that the can pulls the trigger, and thereby the stop is released and a cap moves down the chute towards the capping mechanism to be applied to the particular can which has released it. When the released cap reaches the bottom of the chute, a forked arm or finger, designated in the patent by the letter "V," and operated by an ingenious mechanism of levers, cams, toggle joints, etc., not necessary to be described here, reaches forward and rakes the can cap into the capping mechanism and there places it in its proper position immediately above the can to be headed. The operation of this forked arm "V" resembles very much the operation of a human hand, and, indeed, the operation of this combination of claim 5, whereby each can releases its own cap, seems almost to partake of human intelligence. It certainly is one of the most ingenious pieces of mechanism we have ever been called on to examine, and illustrates and embodies an idea entirely original with Jensen. Nor can there be any question as to its utility. It acts with



the precision of clock-work, and as long as the machinery is in good order, it is impossible for it to make a mistake. This claim is beyond all peradventure of a doubt a claim for the broadest and most pioneer of inventions. There is nothing in the prior art resembling it in the remotest degree. It performs a function which in every respect is entirely new and was original with Jensen. This is admitted by defendants.

Under these circumstances, the claim is entitled to the broadest and most liberal construction ever given to any claim. It is not confined to the form of the particular elements which go to make up the combination, but covers all other devices which would be mechanical equivalents thereof in the broadest sense of the term.

The defendants' device which is charged to be an infringement of this claim will be clearly seen from the cut opposite page 93 of this brief. It shows a trigger in the path of the cans, stops or fingers in the path of the caps, and a connecting mechanism between the trigger and the stop whereby each can automatically releases its cap. It does not show the "inclined chute in-  
" to which the caps are placed," but does show an endless-traveling belt for carrying the caps. In other words, Letson & Burpee have substituted for the chute a carrying belt, and the sole and only question for consideration is, whether or not a cap-carrying belt is

the mechanical equivalent of a cap-carrying chute. If these two devices are mechanical equivalents, then clearly the claim is infringed. Whether or not they are mechanical equivalents depends upon the scope of the claim. If the claim is for a pioneer invention, then the broadest possible doctrine of mechanical equivalents is applicable; and under the decisions heretofore cited, and under that doctrine, there can be no escape from the conclusion that the two devices are mechanical equivalents. That the claim is for a pioneer invention cannot be denied. It has not been denied heretofore by defendants, nor by any one else, so far as we are aware; and even if it were denied, the state of the art shows beyond all question that the claim does cover a pioneer invention.

But let us consider the matter on its merits, without regard to the pioneer character of the invention. The function of Jensen's chute is to operate as a receptacle for a column of caps and allow only one at a time to be released and delivered to another mechanism, which carries it to the capping device. This is the sole and only function of the Letson & Burpee belt. That belt acts as a receptacle for a column of caps and delivers said caps to another mechanism, which carries them to the capping device. If any other function is performed

by the belt, we have failed to discover it. None has been suggested by counsel, and we may, therefore, assume that we are correct.

It is true that in the case of a chute the caps move down its surface by gravity, while in the case of the belt the caps are moved by mechanism; but this is not a material difference in the mode of operation. That stationary chutes and moving belts, as delivering devices, are interchangeable and the equivalents of each other in this and other arts, cannot be denied. The proposition is too apparent for serious doubt and the evidence fully sustains us in this contention.

On this subject the expert witness, Monteverde, testified as follows: "I have seen, if I am not mistaken, " both cans and heads fed by means of chutes and belts. " It is a well-known device. \* \* \* The feeding by " means of a belt is old; it is not new; it is very old in " the art, and it certainly is almost identical with feed- " ing by means of a chute. The object attained is the " same, and in mechanics it would be considered an " equivalent and the one would be used in preference " to the other, mainly in cases where, for convenience, " the preference would be given to one or the other of " them.

" X. Q. 178. What do you mean when you say that " feeding by a belt is old?

“A. Feeding anything by a moving belt, feeding cans, feeding heads, feeding ores, feeding coal—feeding anything.” (Dep. Monteverde, p. 164.)

The expert witness, Seely, testified that a cap-carrying belt is “a well-known and equivalent means for accomplishing the same result” as an inclined chute. (Rec., p. 199.)

The defendant Burpee testified that in the arts he found both chutes and belts used as conveyors in a great many instances; that in some instances chutes could be used to better advantage, while in others belts were preferable, dependent upon the circumstances, adding, “they were both well-known for carrying purposes.” (Dep. of Burpee, Rec., p. 386.)

The defendants have furnished another piece of evidence, which, we think, conclusive.

While prosecuting their application for their patent in the patent office, they endeavored to obtain claims for a combination in which a carrying belt for delivering the cans after being capped was one of the elements, which combination differed from prior combinations in the art only in the substitution for such a belt of an inclined chute. Their claims for such combination were rejected by the patent office on the ground that carrying belts were well known mechanical equiv-

alents for inclined chutes and that the substitution of the belt for the chute was no invention. They acquiesced in this action of the patent office, and cancelled the claims, or amended them to meet the ruling of the office.

To be exact in this matter, the file-wrapper of the Letson & Burpee patent shows that they originally asked for two claims, designated as 18 and 20, which read as follows:

“ 18. In a machine of the class described, having  
 “ a rotatable table with contractible openings therein  
 “ and can supports below such openings and cap-seats  
 “ within the same, means for simultaneously deposit-  
 “ ing a can on one of the seats below the opening and  
 “ a cap into its seat above the same, and of pressing the  
 “ cap downward while the can is being pushed upward  
 “ and for releasing and delivering the same to a belt  
 “ 73, as set forth.

“20. In combination with a rotatable table having  
 “ contractible openings therein and reciprocating disks  
 “ above and below such openings, and reciprocating  
 “ plates on each side thereof, means for placing a cap  
 “ on said plates over one of the openings while the open-  
 “ ing is contracted, and for placing a can on one of  
 “ the reciprocating support disks beneath such open-  
 “ ing and forthwith drawing the plate from beneath  
 “ the cap and for pressing such cap downwards while  
 “ the can is being driven upwards into the same, and  
 “ means for expanding said opening and delivering the

“can to a delivery belt 73, as and for the purpose set forth.”

It will be seen from the foregoing that Letson & Burpee proposed to use an endless traveling belt for carrying away the cans after they had been capped.

Under date of July 20, 1898, the patent office rejected these two claims in the following language:

“Claims 18 and 20 are rejected on 382530, May 8, 1898, Leavitt, Sheet Metal Ware Making, Vessels, Die Seaming; and 443445, above cited,” (December 23, 1898, Jensen, Sheet Metal Ware Making Vessels, Roller Seaming).

In answer to this rejection, Letson & Burpee, on November 2, 1898, filed in the patent office an argument as follows:

“A reconsideration of claims 18 and 20 is asked for the reason that they set out a specific construction, which is not shown by the references. Should the examiner still consider the references pertinent, he is respectfully requested to apply the same more fully.”

In answer to this argument the examiner again rejected the claims in a communication, dated November 29, 1898, in which he said:

“Claims 18 and 20 are each rejected on the references of record cited against these claims. Leavitt shows a table having contractible openings, a can support above and below such openings, and cap seats within the same and means for pressing the can and the cap together and means for releasing the same. *Jensen shows the same, with also a rotatable table and chute; there is no invention in substituting a belt for a chute, since belts and chutes were commonly used in the art.*”

Letson & Burpee acquiesced in this ruling and amended their proposed claims, so as to meet the views of the examiner.

The result of the above-quoted proceedings is to estop Letson & Burpee from now claiming that an endless carrying belt for delivering cans is not the mechanical equivalent of an inclined chute for delivering cans.

The Jensen patent on which the rejection was based is not the Jensen patent in suit, but is another patent of Mr. Jensen's, covering a can-capping machine, which he subsequently devised as an improvement upon the original invention, and the same is fully described and set forth in the case of *Norton vs. Jensen*, 90 Fed. Rep., 415, where it was held by the court of appeals that the said improved device of Jensen was not an infringement upon the Norton patent. By reference to that patent, as shown in the report of the case, it will be

seen that Letson & Burpee obtained the fundamental idea of a continuous machine from Jensen's improved machine, there shown. It is a continuously operating device, but is subservient to the original patent. Said second Jensen patent also shows a gang of rotary plungers and a stationary cam for operating them substantially as shown in Letson & Burpee's patent. Doubtless it is from that source that Letson & Burpee got their ideas.

It is too late now for Letson & Burpee to contend that a delivery belt is not the mechanical equivalent of a delivery chute. Their action in the patent office conclusively estops them from making such contention. The examiner plainly told them that there was "no invention in substituting the belt for the chute, since delivery belts and chutes are commonly used in the art." In other words, he told them that the two devices were mechanical equivalents. They deliberately acquiesced in this ruling and took their patent with that understanding. The rule of law applicable to such cases is too well settled to require further elaboration, and we content ourselves with merely citing the authorities which sustain it:

*Hubbell vs. U. S.*, 179 U. S., 77.

*Morgan vs. Albany*, 152 U. S., 425.



*Fay vs. Cordesman*, 109 U. S., 408.

*Sargent vs. Lock Co.*, 114 U. S., 63.

*Sheppard vs. Carrigan*, 116 U. S., 593.

*Leggett vs. Avery*, 101 U. S., 256.

*Vulcanite Co. vs. Davis*, 102 U. S., 202.

*Mahn vs. Harwood*, 112 U. S., 354.

*Wheaton vs. Norton*, 70 Fed. Rep., 833.

*Phoenix Castor Co. vs. Spiegel*, 130 U. S., 368.

*Yale Lock Co. vs. Berkshire Bank*, 135 U. S.,  
379.

*Dobson vs. Lees*, 137 U. S., 258.

In the testimony given by the defendant Burpee, concerning this claim, an effort is made to show that it is of little value, and he states that the defendants' machine would work as well without the stops extending across the path of the caps, provided the machine be kept filled all the time with cans and caps, and he states that some of his machines had been operated without the stops. If this is true, then the infringement is without the shadow of an excuse. If the device in question is useless, and the defendants' machine can be used just as well without it, then the use of it by the defendants cannot be condemned in language too severe, and it passes our comprehension to understand the motive which calls forth such testimony.

But in his contention as to the want of utility of this device, the defendant Burpee is contradicted by his own patent. On page 4, beginning at line 111 of the specification in the Letson & Burpee patent, we find the following language:

“And now comes one of the most important features of our machine. As a can is pushed around within the arc 63, it will contact with the fixedly-disposed arms of the bracket 86, pivoted on a stem 87a (see Fig. 5), and by reason of such arms projecting in the path of the cans, each can that passes will cause a rigidly fixed arm 88, on the top of the said bracket, to rock forward and back. A coupling connection 89 causes movement to be imparted to the spacing mechanism 90, which is adjustably fixed to the projecting lug 91, on the cap-table 38. It will thus be seen that each can releases its own cap—as, for instance, when a cap B engages the bracket 86, a cap A will be released, and as the next recess in the wheel 36 contains said can, the released cap will take the seat in the cap-feed wheel 37, directly over such can, and consequently, the can and cap will be transferred to their respective positions beneath and on the table 20.

“The spacing mechanism 90 is a duplicate of the device 75, which reverses to engage the caps coming the opposite way.”

In view of this statement in the defendants' patent, it is rather late in the day for them to contend that the

device in question is of no utility. They thought it was of very great utility when they were seeking to secure their patent. The statement that they then made on the subject is entitled to more credit than the one which they are now making, and we think the court will be justified in concluding that this device is a most valuable one.

The answer which the learned counsel for defendants makes in his brief to our charge of infringement of this claim 5 appears to us weak. At page 74 of his brief he says:

“The fundamental foundation device in this combination is the inclined chute. Without this inclined chute for the can heads the remainder of the mechanism would be entirely useless.”

These statements are unsupported by the evidence. The inclined chute is not “the fundamental foundation device in this combination. Nor is it true that without this chute “the remainder of the mechanism would be entirely useless.” That we are correct in this position is clearly shown by the fact that a belt can be substituted for the chute, and has been so substituted by the defendants. It is possible to conceive also of other cap-delivering devices which might be substituted. A rotating table might be used for the purpose, and was

used by Jensen in his second patent, being the one involved in *Norton vs. Jensen*, 90 Fed. R., 415. A similar device was used in the old Jordan machine. So long as such devices operate as a receptacle for the caps, and allow only one to be delivered at a time, they would be equivalents for the chute and could be substituted therefor. This element of an inclined chute in claim 5 is commensurate with any device which acts as a receptacle for the caps in mass and allows only one to be delivered at a time. There are various devices in the art which could be used for that purpose, and Jensen selected one of them, to wit, the chute, as the one which he considered to be the best for the purpose. He might have selected any other, and his claim is broad enough to include any other.

On page 75 of his brief, the counsel argues that this Jensen chute is very defective in many particulars, and he undertakes to point out one particular where he says it is defective. But this is utterly immaterial to the point under investigation. The chute certainly does perform the function which Jensen had in mind, and if it be true that other devices would perform that function in a little better way, he is not, for that reason, to be denied the broad construction of his claim which the law says he is entitled to.

At another place in his brief, the counsel argues that

a delivery belt could not be substituted in the Jensen machine for the chute, and that a chute could not be substituted for the belt in the Letson & Burpee machine, and from this argument he concludes that the two devices are not mechanical equivalents. But in that contention he is in error. It would be perfectly practicable to substitute a delivery belt for the chute in the Jensen machine, and it would not require the exercise of inventive genius to make the substitution. Nothing more than the skill of the mechanic would be required. In case of such substitution it may be true, though we are not quite sure of that, that it would be necessary to change the Jensen mechanism of the forked arm V, for carrying the released cap into the capping mechanism; but in that behalf it is to be remarked that said forked arm V is no part of the combination of claim 5. It is an independent device, brought into play after the operation of the combination of claim 5 has been performed. Consequently, if it be true that in substituting the belt for the chute it would be necessary to provide other mechanism in place of the forked arm V, that fact is utterly immaterial to the point in hand.

It is equally apparent that in the Letson & Burpee machine an inclined chute might be substituted for the belt. It may be true in that case that a different device

would be required for carrying the released cap into the capping mechanism. That is to say, the cap-feeding wheel might have to be changed to some other device; but that fact is utterly immaterial, just as was the case supposed above of the substitution in the Jensen machine of some other device for the forked arm V.

Even the defendant Burpee himself testified that it would not be impossible to substitute a chute for the belt in his machine. (Deposition of Burpee, Rec., 397-8.) In this he was clearly right, for it requires but small knowledge of mechanics to see that such substitution could be made. Both devices were old in the art, and were interchangeable one for the other. Sometimes a chute was used; sometimes a belt. In the words of Mr. Burpee himself: "They were both well known for carrying purposes," and that whether one is preferable to another depends upon the particular circumstances of the case. (Deposition of Burpee, Rec., p. 386.)

At pages 75 *et seq.* of his brief, the counsel for defendants refers to the fact that after a cap is released from the Jensen chute, there is an additional and very complicated mechanism for carrying the released cap from the bottom of the chute into the capping mechanism, and that the mechanism in the Letson & Burpee

machine for that purpose, consisting of a cap-feed wheel with recesses in its periphery, is entirely different from the corresponding device in the Jensen patent, consisting of forked arm V with its actuating mechanism, and that the one cannot be substituted for the other. But a moment's reflection must convince him that this is utterly immaterial to the point under discussion. That additional mechanism referred to, which carries the released cap from the bottom of the chute to the capping mechanism, is no part of claim 5. It is not an element in claim 5, and has no more to do with it than the plungers of the capping mechanism or the feeder of the can-carrying mechanism. Such additional mechanism is covered by another claim in the patent, not sued on herein, claim 7. Claim 5 covers the combination only of the chute, the stop, the trigger, and mechanism connecting the two whereby the can releases its own cap. After that operation is performed—that is to say, after the cap has been released from the chute—then the function of the claim in question ceases, and another entirely separate and independent device comes into play and carries this released cap to the capping mechanism. Therefore, it is utterly immaterial whether or not this additional mechanism, which is not covered by claim 5, is different from the

mechanism used for the same purpose in the defendants' machine; and it is utterly immaterial that the one cannot be substituted for the other. We forbear to dwell on the point any longer. It seems too plain for further discussion.

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#### INFRINGEMENT OF CLAIM 9.

9. *The vertically moving plunger upon which the cans are delivered by the feeder, in combination with the conical guide situated above the cans, and the transversely-moving slides upon which the caps are received and held, with a mechanism by which the slides are withdrawn as the can enters the cap, substantially as herein described.*

The elements of this claim are: (1) The vertically-moving plunger or can-seat; (2) the conical guide; (3) the transversely-moving slides or cap-seats; (4) mechanism for withdrawing the slides as the can enters the cap.

The cuts opposite page 27 hereof show the Jensen construction, while the cuts opposite pages 95 and 96 show the Letson & Burpee construction.

The only element about which there can be any contention is "The vertically-moving plunger upon which



the cans are delivered by the feeder." It is contended by defendants that their machine has no such plunger.

This contention is without any merit. The machine has a device marked 19, called in the patent "A cap-seat." It is a circular plate or disc, having a depending vertical stem 18, passing through a bored-out vertical hole in the revolving bracket 14a. That this device is "a plunger" cannot be denied, and it would be idle to waste any time on that proposition. It is contended, however, by defendants, that it is not a *vertically-moving* plunger. The bracket 14a carrying this plunger rotates around the central shaft, and in that rotation the foot of the stem 18 of the plunger passes over the inclined face 46 of a stationary cam 47. It is contended by defendants that the result of this is that the plunger, instead of rising in a true vertical line, as in the Jensen machine, rises upward on an inclined line, so that it is not technically a true vertically-moving plunger. It is admitted to be an *upwardly-moving* plunger. The precise contention is that a plunger moving upward on an incline is not the equivalent of one moving upward in a true vertical line.

The two devices are plainly equivalents. They are both plungers. Both ultimately reach the same point, viz: the capping mechanism. Both carry the can to

that mechanism to be capped. Both remove the can therefrom after it is capped. Neither performs any other function. The only difference suggested is that one travels in a straight vertical path, while the other travels in a straight diagonal path.

At the risk of tediousness we will again call the court's attention to the fact that the Jensen invention is of a primary character, and, therefore, the defendants' construction is the mechanical equivalent thereof. When Jensen specified "a vertically-moving plunger," he did not thereby limit himself to one having an absolutely true vertical motion, but he merely specified that as the best form in which his invention could be embodied. A plunger moving upward in a diagonal line would be within the claim. On this point the authorities are without dissent.

The earliest case by the Supreme Court is *Winans vs. Denmead*, 15 How., 330, where the invention was for an improvement in coal cars. The car-body was made in the form of the frustum of a cone, with a trap-door in the bottom. On withdrawing a bolt, the weight of the coal caused the door to fall, and the entire contents were thereby discharged without further labor. The form of the car-body permitted it to extend down between the wheels nearly to the ground,

thus lowering the center of gravity and increasing the carrying capacity, which was very much further increased by the uniform distribution of pressure resulting from the form of the car-body. The patentee, however, was not happy in the language in which he framed his claim, which was as follows:

“Making the body of a car for the transportation of coal, etc., *in the form of the frustum of a cone*, substantially as herein described, whereby the force exerted by the weight of the load presses equally in all directions and does not tend to change the form thereof, so that every part resists its equal proportion, and by which also the lower part is so reduced as to pass down within the truck frame, and between the axles, to lower the center of gravity of the load, without diminishing the capacity of the car, as described.”

This claim afforded a loop-hole for the technical evader. It called for the *frustum of a cone*, which is a definite geometric figure. Substantially all of the advantages of the invention could be obtained, however, by substituting for the frustum of a cone the *frustum of a pyramid*, and that is what the infringer did. He had evaded the letter of the claim, because the frustum of a pyramid is no more the frustum of a cone than is a sphere a cube. When charged with infringement, the defendant triumphantly asserted to the patentee: “Your claim calls for the frustum of a cone. I use no

“ cone; I use the frustum of a pyramid. I have escaped  
 “ the language of your claim.” The lower court was  
 impressed with this specious argument, and adjudged  
 that there was no infringement; but the Supreme Court  
 reversed the ruling, and Mr. Justice Curtis, speaking  
 for that tribunal, said:

“Now, it is undoubtedly true that the patentee may  
 “ so restrict his claim as to cover less than what he in-  
 “ vented, or may limit it to one particular form of  
 “ machine, excluding all other forms, though they also  
 “ embody his invention, yet such an interpretation  
 “ should not be put upon his claim if it can fairly be  
 “ construed otherwise. \* \* \* It is generally true  
 “ when a patentee describes a machine and then claims  
 “ it as described, that he is understood to intend to  
 “ claim, and does by law actually cover, not only the  
 “ precise form he has described, but all other forms  
 “ which embody his invention; it being a familiar rule  
 “ that to copy the principle or mode of operation de-  
 “ scribed is an infringement, although such copy should  
 “ be totally unlike the original in form or proportion.  
 “ Why should not this rule be applied to this case? It  
 “ is not sufficient to distinguish this case to say that here  
 “ the invention consists in a change of form and the pat-  
 “ entee has claimed one form only.

“Patentable improvements in machinery are almost  
 “ always made by changing some one or more forms  
 “ of one or more parts, and thereby introducing some  
 “ mechanical principle or mode of action not previ-  
 “ ously existing in the machine, and so securing a new

“or improved result. And in numerous cases, in  
 “which it has been held that to copy the patentee’s  
 “mode of operation was an infringement, the infringer  
 “has got forms and proportions not described in the  
 “terms claimed. If it were not so, no question of in-  
 “fringement could arise. If the machine complained  
 “of were a copy in form of the machine described in  
 “the specification, of course it would be at once seen  
 “to be an infringement. It could be nothing else.  
 “It is only ingenious diversities of form and propor-  
 “tion, presenting the appearance of something unlike  
 “the thing patented, which give rise to questions; and  
 “the property of inventors would be valueless if it were  
 “enough for the defendant to say: ‘Your improvement  
 “‘consisted in a change of form; you describe and  
 “‘claim but one form. I have not taken that, and so  
 “‘have not infringed.’ The answer is: ‘My improve-  
 “‘ment did not consist in a change of form, but in the  
 “‘new employment of principle or powers, in a new  
 “‘mode of operation embodied in a form by means of  
 “‘which a new or better result is produced. It was  
 “‘this which constituted my invention; this you have  
 “‘copied, changing only the form.’ And that answer  
 “is justly applicable to this patent.

“Undoubtedly there may be cases in which the let-  
 “ters patent do include only the particular form de-  
 “scribed and claimed. *Davis vs. Palmer*, 2 Brock.,  
 “309, seems to have been one of those cases. But they  
 “are in entire accord with what is above stated.

“The reason why such a patent covers only one geo-  
 “metrical form, is not that the patentee has described  
 “and claimed that form only; it is because that form  
 “only is capable of embodying his invention; and con-

“sequently, if the form is not copied, the invention is  
“not used.

“Where form and substance are inseparable, it is  
“enough to look at the form only. Where they are sep-  
“arable, where the whole substance of the invention  
“may be copied in a different form, it is the duty of  
“courts and juries to look through the form for the sub-  
“stance of the invention—for that which entitled the  
“inventor to his patent, and which the patent was de-  
“signed to secure; where that is found, there is an in-  
“fringement; and it is not a defense that it is embodied  
“in a form not described and in terms claimed by the  
“patentee.

“Patentees sometimes add to their claims an express  
“declaration to the effect that the claim extends to the  
“thing patented, however its form or proportions may  
“be varied. But this is unnecessary. The law so in-  
“terprets the claim without the addition of these  
“words. The exclusive right to the thing patented is  
“not secured, if the public are at liberty to make sub-  
“stantial copies of it, varying its form or proportions.  
“And, therefore, the patentee, having described his  
“invention and shown its principles, and claimed it in  
“that form which most perfectly embodies it, is, in  
“contemplation of law, deemed to claim every form  
“in which his invention may be copied, unless he mani-  
“fests an intention to disclaim some of those forms.”

It is impossible to distinguish the Winans-Denmead case from the case at bar. Winans claimed, in terms, the frustum of a *cone*; the defendant had used the frustum of a *pyramid*; but, as both devices accomplished

the same purpose in substantially the same way, they were held to be mechanical equivalents. Jensen has claimed, in terms, a *vertically*-moving plunger, while Letson & Burpee have used a plunger which does not move in a true vertical line, but does move *upwardly on an inclined line*—in a word, a *diagonally*-moving plunger. It, however, performs identically the same function as the true vertical plunger, and in substantially the same way. Consequently, it is the mechanical equivalent.

Another case equally in point is *Ives vs. Hamilton*, 92 U. S., 426, relating to a method of hanging and runnings saws in saw-mills. The claim was worded as follows:

“Giving to the saw in its downward movement a  
 “rocking or rolling motion by means of the combina-  
 “tion of the cross-head working in the *curved guides*  
 “at the upper end of the saw, the lower end of which  
 “is attached to a cross-head, working in *straight guides*  
 “and pivoted to the pitman *below* the saw, with the  
 “crank-pin, substantially as described.”

It will be seen that this claim, in terms, calls for a cross-head working in *curved* guides at the upper end of the saw, and a cross-head at the *lower* end of the saw working in straight guides and pivoted to the pitman *below* the saw.

In the infringing machine *angular* guides were substituted for the curved guides of the upper cross-head, and the lower end of the saw was pivoted to the pitman *below* instead of *above* the cross-head, thus reversing the patentee's arrangement without changing the result. The decision of the lower court is published in 6 Fish., 244, where a very elaborate opinion was rendered by Judge Longyear. The Supreme Court concurred in that opinion, and, through Mr. Justice Bradley, said:

“The substitution of guides at the top, made crooked  
 “ by a broken line instead of a curved line, is too trans-  
 “ parent an imitation to need a moment's consideration.  
 “ A curve itself is often treated, even in mathematical  
 “ science, as consisting of a succession of very short  
 “ straight lines, or as one broken line, constantly chang-  
 “ ing its direction; and many beautiful theorems were  
 “ evolved by the early mathematicians on this hypothe-  
 “ sis. At all events, in mechanics, when, as in this  
 “ case, a broken line is used instead of a regular curve,  
 “ being deflected at one or more points by a very slight  
 “ angle, and performing precisely the same office as a  
 “ curve similarly situated, the one is clearly the equiva-  
 “ lent of the other.

“The attaching of the lower end of the saw to the  
 “ pitman below the cross-head instead of above it, and  
 “ thereby getting the same movement as before by re-  
 “ versing the motion of the crank, is no change in prin-  
 “ ciple. This is too obvious for discussion.



“The combination of the two things in the defendants’ mill, namely, the crooked guides above and the connection of the saw with the pitman below at a point removed from its center of motion, both being calculated to give to the saw its precise rocking or vibratory motion desired, is a close copy of the plaintiff’s invention; quite as close as is usually made by those who attempt to evade a patent whilst they seek to use the substance of the invention.”

A similar ruling was made in *Reed vs. Smith*, 40 Fed. Rep., 882, where it was held that a broken line was the equivalent of a true curve.

If, therefore, it be true that a broken line is the equivalent of a true curve in the case of a pioneer invention, how is it possible to escape the conclusion that the upward travel of Letson & Burpee’s plunger on an incline is the mechanical equivalent of the true vertical movement of Jensen’s plunger?

On the same point, we refer to the cases, already quoted, of *Brush vs. Condit*, 132 U. S., 39, where a square clamp was held to be the equivalent of a circular clamp; *Manufacturing Co. vs. Bushing Co.*, 31 Fed. Rep., 76, where a circular bung-hole was held to be the equivalent of a conical one; the *Accumulator case*, 38 Fed. Rep., 143, where a round hole was held to be the equivalent of a square hole; and *Moore vs. Clark*, 65 Fed. Rep., 526, where a square bowl in a stationary

wash-stand was held to be the equivalent of a circular or oval bowl.

Another instructive case is that of *Machine Co. vs. Murphy*, 97 U. S., 120, where the Supreme Court, through Mr. Justice Clifford, used the following language:

“ Except where form is of the essence of the invention, it has but little weight in the decision of such an issue, the correct rule being that, in determining the question of infringement, the court or jury, as the case may be, are not to judge about similarities or differences by the names of things, but are to look at the machines or their several devices or elements in the light of what they do, or what office or function they perform, and how they perform it, and to find that one thing is substantially the same as another, if it performs substantially the same function in substantially the same way to obtain the same result, always bearing in mind that devices in a patented machine are different in the patent law when they perform different functions or in a different way, or produce a substantially different result.

“ Nor is it safe to give much heed to the fact that the corresponding device in two machines organized to accomplish the same result is different in shape or form the one from the other, as it is necessary in every such investigation to look at the mode of operation or the way the device works, and at the result, as well as at the means by which the result is attained.

“ Inquiries of this kind are often attended with difficulty; but if special attention is given to such por-

“tion of a given device as really does the work, so as  
 “not to give undue importance to other parts of the  
 “same which are only used as a convenient mode of  
 “constructing the entire device, the difficulty attending  
 “the investigation will be greatly diminished if not en-  
 “tirely overcome. (*Cahoon vs. Ring*, 1 Cliff., 620.)

“Authorities concur that the substantial equivalent  
 “of a thing, in the sense of the patent law, is the same  
 “as the thing itself; so that if two devices do the same  
 “work in substantially the same way and accomplish  
 “substantially the same result, they are the same, even  
 “though they differ in name, form, or shape. (*Cur-  
 “tis, Patents* (4th ed.), Sec. 310.)”

Still another case worthy of consideration is *Murphy vs. Eastman*, 5 Fish., 306, where a patentee had claimed a brush having around the head, near the bristles, an angular groove, in which was fitted a band of rubber made in the form of a parallelogram or rhombus, with one of its angles projecting outward, so as to prevent the hard brush-head from coming in contact with the glass or other surface to be dusted. The defendants' brush had around the head, near the bristles, a semi-circular groove, in which was fitted a round rubber band for the same purpose as the patentee's angular rubber band.

The claim called, in words, for the *angular* form, and it was contended that the *circular* form was no infringement, because outside of the strict language of

the claim. But Judge Shepley brushed aside this technicality in the following forcible language:

“The patentee, in his specification and claim, has only described one geometrical form of groove or furrow, and three geometrical forms for the rubber ring, *i. e.*, the parallelogram, rhombus, and triangle. Perhaps a strict construction of the language would exclude the triangle from the list of forms of the rubber ring in the claim. The patentee does not, as is sometimes done, claim, in terms, the thing patented, however its form and proportions may be varied; but the law so interprets his claim without the addition of these words. In contemplation of law, after he has fully described his invention and shown its principles, and claimed it in a form which perfectly embodies it, unless he disclaims other forms, he is deemed to claim every form in which his invention may be copied.

“Undoubtedly, in some cases the letters patent include only the particular form described and claimed, not for the reason that the patentee has described and claimed that form only, but because the invention consists in form only, and only in that form can be embodied, so that when the form is not copied the invention is not used. (*Winans vs. Denmead*, 15 How. (56 U. S.), 343.)

“We must look, therefore, into the nature of the invention, and see whether its forms and its substance are inseparable. If they are inseparable, then the respondents, having changed the form, do not copy the substance of the invention; but if they are separable, and the substance of the invention which the patent is

“ designed to secure is to be found in the manufactures  
 “ of the respondents, although copied and embodied in  
 “ a form not described, or different from the form de-  
 “ scribed and specifically claimed by the patentee, then  
 “ they have infringed. The invention, as described  
 “ and claimed, is for a brush-head, provided with an  
 “ angular groove or furrow, with an India-rubber  
 “ band in that furrow.

“ As the operative part of the rubber band can come  
 “ in contact with the wood or glass to be dusted or  
 “ brushed only at one line in the periphery of the band,  
 “ it can make no difference in the result whether the  
 “ shape of the rubber is circular or angular; whether a  
 “ cross-section of the rubber band would be a parallel-  
 “ ogram, a rhombus, or—what a circle practically is—  
 “ a many-sided polygon; or whether the shape of the  
 “ groove be semi-circular or polygonal or triangular,  
 “ they would accomplish the same result in the same  
 “ manner, and by the same means. Cut away from  
 “ the defendants’ band a segment of the circle on both  
 “ sides of the line in the periphery of the band where  
 “ it touches the glass to be brushed, and you have only  
 “ removed a superfluous and inoperative part; and the  
 “ same principle, *mutatis mutandis*, applies to the band  
 “ in the groove and the groove itself. One geometrical  
 “ form as much as the other may embody the substance  
 “ of this invention, and copy and use the invention it-  
 “ self. Decree for injunction and account.”

A recent case in point is *Metallic Extraction Co. vs. Brown*, 104 Fed. Rep., 345-6, decided by the court of appeals of the eighth circuit. There the invention was

a roasting furnace, and amongst other things the claim called, in terms, for a supplemental chamber *at the side* of the main roasting chamber. The defendant had used a supplemental chamber, not at the side of, but *underneath or at the bottom* of the main roasting chamber. It was held to be an infringement, because the invention was held to be of a pioneer character.

In the case of *Hoyt vs. Horne*, 145 U. S., 302, the claim called for a device operating in a *horizontal plane*. The defendant had evaded the wording of the claim by causing his device to operate in a *vertical*, instead of in a horizontal, plane, and the question was whether this was the mechanical equivalent of the patented arrangement. The court held that it was. The decision is a most interesting one, but we do not deem it necessary to quote from it at length. It is conclusive of the case at bar. The parallel is perfect. In one the question was whether a vertical plane was the equivalent of a horizontal plane; in the other, the question is whether a diagonal line is the equivalent of a vertical line. Not until this Supreme Court decision is overruled can a decision adverse to Jensen be logically made.

Another case of a pioneer invention, where the defendant had evaded the language of the claim, is *Reece Button Hole Machine Co. vs. Globe Button Hole Co.*,

61 Fed. Rep., 958, relating to a sewing machine. The claim called for a moving frame and a stationary plate, whereas the defendant had used a stationary frame and a moving plate. The court of appeals for the first circuit held the two arrangements to be equivalents.

In *Harmon vs. Struthers*, 57 Fed. Rep., 637, the court of appeals for the third circuit made a similar ruling regarding a pioneer invention. There the claim called for a *vertical* shaft, whereas the defendant had used a *horizontal* shaft; but the two machines accomplished the same result, and they were held to be equivalents on the authority of *Morley Machine Co. vs. Lancaster* and *Winans vs. Denmead*.

The case of *Westinghouse vs. Boyden*, 170 U. S., 537, is another instance where the rule was laid down that there may be an infringement, although the device is outside of the literal language of the claim. The court there said:

“We have repeatedly held that a charge of infringement is sometimes made out though the letter of the claim be avoided.”

And in support of that the court cited *Machine Co. vs. Murphy*, 97 U. S., 130; *Ives vs. Hamilton*, 92 U. S., 426; *Morey vs. Lockwood*, 8 Wall., 230; *Elizabeth vs.*

*Pavement Co.*, 97 U. S., 137; *Sessions vs. Romadka*, 145 U. S., 29; *Hoyt vs. Horne*, 145 U. S., 302.

We thus see that, in the case of pioneer inventions, form is of no moment; and where the invention may be embodied in different geometrical forms, a claim in one form does not exclude other forms. According to the cases cited, the following forms have been held equivalents:

A pyramid=a cone.

A broken line=a true curve.

A square=a circle.

An oval=a circle.

A circular groove=an angular one.

A vertical plane=a horizontal plane.

A vertical shaft=a horizontal shaft.

How, then, is it possible to escape the conclusion that Letson & Burpee's *diagonally*-moving plunger is a mechanical equivalent of Jensen's *vertically*-moving plunger?

But after all, the contention of defendants' counsel that the Letson & Burpee plunger is not "vertically-moving" is more specious than sound. That device is, in reality, "a vertically-moving plunger." It is quite true it has an additional motion, to wit: a motion in a circular path; but, nevertheless, it actually has a verti-



cal motion also. It has two motions, one vertical and the other circular, both going on at the same time. The vertical motion is due to the fact that the stem 18 of the plunger passes through the bored-out vertical hole of the bracket 14a. There can be no doubt of that. A rod cannot travel through a vertical hole without having a vertical motion, any more than a locomotive's piston can not travel through a horizontal steam cylinder without having a horizontal motion. The circular motion of defendants' plunger is due to the fact that the bracket 14a rotates around the central shaft 13, while the plunger is moving vertically. In other words, the plunger is rotating while moving vertically. This compounding of motions was copied from Jensen's patent involved in 90 Fed. Rep., 415. In that respect it is analogous to the case of a marine engine on a steamboat. The cylinders of those engines are vertically placed, and the motion of the piston is vertical. The fact that the boat is moving horizontally on the water while the engine is operating does not prevent the piston from being truly called a vertically-moving piston.

But the defendants' own patent proves our contention. In its claim 1, the upper plungers, or cap-pressers, as they are styled, are described as "vertically re-

reciprocal." By reference to the drawings, it will be seen that those "vertically reciprocal" cap-pressers are marked 26, and that their motion is precisely the same as that of the lower plungers 19. In his testimony, the defendant Burpee admits this. He was questioned about these two devices, the upper and lower plungers, and he answered as follows:

"X. Q. 163. What I mean is, if one of them moves vertically the other moves vertically, and if one does not move vertically, then the other does not move vertically?"

"A. That is correct.

"X. Q. 164. Their motions are similar in that respect?"

"A. They are similar in that respect."

Therefore, since the upper plungers are "vertically" reciprocal, it follows that the lower ones are likewise "vertically" reciprocal.

In claim 2 of the Letson & Burpee patent, we find the expression "vertically reciprocal cap-pressers"; in claim 4, the expression "reciprocating disks"; in claim 5, the expression "reciprocating disks vertically above and below"; in claim 6, the expression "reciprocating can and cap disks beneath and above"; in claims 7 and 10, the expression "reciprocating can and cap disks below and above"; in claim 18, the expression "vertically

reciprocal cap-pressers"; and in claim 21, the expression "vertically reciprocating disks."

Similar expressions are found in Jensen's patent. In claim 11, it is said that the plunger is "reciprocated vertically." In claims 12, 13, 14, and 15, we find the expression "vertically moving disk"; in claims 9, 10 and 11, "vertically moving plunger."

From the foregoing it is apparent, we submit, that Letson & Burpee, in their patent, intended to, and did, describe these plungers, both the upper and lower one, as "vertically moving," or, to use the exact expression, "vertically reciprocal," which conveys the same idea. Consequently, they are estopped from now urging the contrary.

It is admitted by defendant Burpee in his testimony (X. Q. 145, 148), that his machine has all the other elements of claim 9, and, consequently, it will not be necessary to discuss them.

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#### INFRINGEMENT OF CLAIM 10.

This claim is the same as claim 9, with the addition of "the second plunger moving vertically above the cap "and following it down by gravitation or otherwise, so "as to steady the can in its descent, after the cap has "been applied."

Concerning this added element, it is sufficient to say that the Letson and Burpee machine has the same. It is called in their patent a "cap-presser," and is designated by the figure 26. That is Jensen's upper plunger, nothing more and nothing less. The only pretense of a difference, and it is nothing but a pretense, which the defendants point out between the two devices, is the assertion that in their machine the upper plunger is used for a different purpose from that specified as its use in the Jensen machine. They admit having the device, the thing itself, but say that they use it for a different purpose. If so, that is no palliation for the infringement, because the patentee is entitled to all the uses to which his device may be put, whether he specified them in his patent or not. Even though some of such uses were unknown to him, he is entitled to the same. His patent covers the *device itself*, not the functions of the device, or the uses to which it may be put, and he is entitled to use the patented device for any and all uses and purposes to which it may be put.

This was decided by the supreme court in *Roberts vs. Ryer*, 91 U. S., 157, where it was said:

"It is no invention to use an old machine for a new purpose. The inventor of a machine is entitled to the benefit of all the uses to which it can be put, no

“matter whether he had conceived the idea of the use  
“or not.”

The same rule was laid down in:

*Stow vs. City of Chicago*, 104 U. S., 547.

*Heald vs. Rice*, 104 U. S., 737.

*Eames vs. Andrews*, 122 U. S., 40.

*Brown vs. Dist. of Columbia*, 130 U. S., 87.

*Miller vs. Manufacturing Co.*, 151 U. S., 201.

*Ligowsky vs. American Co.*, 34 Fed. Rep., 331.

*Thomson vs. Gildersleeve*, 34 *Id.*, 45.

*Steyner vs. Blake*, 36 *Id.*, 186.

*Western Elec. Co. vs. Sperry*, 58 *Id.*, 186.

*Appleton vs. Star*, 60 *Id.*, 411.

*Galt vs. Parlin*, 60 *Id.*, 422.

*Thomson vs. Meter Co.*, 65 *Id.*, 427.

*Goshen vs. Carpet Co.*, 72 *Id.*, 74-75.

*Stearns vs. Russell*, 85 *Id.*, 226.

Therefore, if the defendants have taken Jensen's upper plunger and applied it to a different use from that specified in the patent, they are infringers.

But is the upper plunger in defendants' machine used for a different purpose? We think not, within the true intent and spirit of the patent law.

It is stated in the Jensen patent that his upper

plunger, designated by the letter U, follows the can down after it is capped and steadies it in the descent.

Defendant Burpee contends that his upper plunger is not used for that purpose, but is used for pressing the cap on its seat, and thereby acts as a back-plate or resisting plate, when the can-body is forced into the cap.

If this be true of defendants' machine, it is equally true of Jensen's. There can be no doubt whatever about this. See Dep. of Seely, p. 117, where the witness says of the Jensen upper plunger: "The upper plunger forms a backing or abutment for the cap during the heading operation." It is true that the specification does not mention the fact; but it is apparent from the mechanism itself that the fact exists; consequently, it is immaterial that the specification does not mention it. We have the supreme court as authority for the contention that Jensen is entitled to such use of his plunger, even though he has not specified it in his patent. (See cases cited *supra*.)

But we contend that the Letson & Burpee upper plunger is actually used for the same purpose as the specified use of Jensen's upper plunger, viz: to follow the capped can down and steady it. The only difference between the two is that the Jensen plunger follows the can *all the way* down, whereas the Letson & Burpee plunger follows the can only *part of the way* down.

By cross-question 198, Burpee was asked to what extent his upper plunger followed the can down, and he answered, "It follows it part way down," etc., etc. (Rec., 410.)

And in answer to cross-question 199, viz: "Does it not follow the can down and in contact with it to some extent?" he answered: "Just of the slackness in the fit of the roll in the cam-way, it does to that extent, but it is not intentional. It is just manufactured that way on account of the ease in manufacturing it that way." (Rec., 410.)

And furthermore, he testified that sometimes a can would stick in the opening 21, and would not descend, and that in such case the upper plunger would descend against it and eject it. (See X. Q. 200-206, Rec., 410-412.) Of course, it goes without saying that in such case the plunger follows the capped can down.

We think it clear from the foregoing that the Letson & Burpee upper plunger performs the same function as the Jensen. But whether it does or not, it is the device itself that is patented, not its use, and defendants are infringers, if they use that device for any purpose whatever.

## INFRINGEMENT OF CLAIM II.

II. *The vertically moving plunger upon which the can is received, a carrier for placing the can upon the plunger, and a mechanism by which this plunger is reciprocated vertically, in combination with a second plunger, which rests upon the top of the cap and steadies it while descending, and a mechanism for raising the second plunger before the arrival of the next cap, substantially as herein described.*

The elements of this claim are, (1) the vertically moving plunger; (2) a carrier for placing the can on the plunger; (3) a mechanism by which the plunger is reciprocated vertically; (4) a second plunger overhead; and, (5) a mechanism for raising this second plunger before the arrival of the next cap.

If we are correct in the argument already made concerning the other claims, there can be no question as to this one. The first element has already been considered, and nothing further regarding it will be necessary.

The second element consists of a carrier for placing the cans upon the lower plunger. This element is broad and unlimited. Any automatic carrier which places the can on the plunger falls within its language, and it is idle to assert that the Letson & Burpee machine has



not a carrier which does that thing. The learned judge of the lower court held that this element was limited to the specific mechanism shown; but we have already shown in this brief that such holding was error, because both the language of the claim and the state of the art show that the claim is not so limited.

The third element, a mechanism by which the plunger is reciprocated vertically, is likewise broad and unlimited in terms. Any mechanism which will reciprocate the plunger is sufficient. The mechanism illustrated in Jensen's patent drawings for that purpose is a moving cam, while the device used by Letson & Burpee is a stationary cam. Such motions are plainly the equivalents of each other. Both motions are old and well-known in mechanics. The fourth element, a second plunger, is the same second plunger referred to in claim 10, and has already been considered.

The last element is a mechanism for raising this second plunger before the arrival of the next cap. The language is broad, and any mechanism that would accomplish that purpose would be within the language of the claim. This function is performed in the defendants' machine. They have a separate plunger, and they have the mechanism for raising it before the arrival of the next cap.

We have now gone over all of the claims in controversy, and, in conclusion, we submit that they are all pioneer claims, entitled to a broad and liberal construction, and that when so construed, the Letson & Burpee machine is an infringement thereof.

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#### REPLY TO DEFENDANTS' BRIEF.

We desire to say a few words in answer to the defendants' printed brief. There appear to be four main points advanced in said brief, viz:

1. *That the Letson & Burpee machine is a continuously operating machine, whereas the Jensen machine is an intermittent one, and consequently, that there can be no infringement.*
2. *That some of the individual elements of the combinations in the two machines cannot be substituted for one another, and hence, they cannot be mechanical equivalents.*
3. *That the Letson & Burpee machine is a faster one and will cap more cans in a given time than the Jensen machine.*
4. *That the Jensen machine is not patented as a whole.*

Regarding the first point above stated, we have already made some observations in this brief, and only a word more will be necessary. It seems to be the main point relied on by counsel for defendants. His argument is that the Letson & Burpee machine, taken as an entirety, as a whole, operates on a different principle from the Jensen machine taken as an entirety, as a whole. In other words, that the Letson & Burpee machine is a continuously operating machine as a machine, while the Jensen machine is an intermittently operating machine. But this difference is utterly immaterial to the claims in controversy. Those claims do not purport to cover the machine as a whole. They are sub-combinations, that is to say, claims for different parts and portions of the machine. The machine as a whole performs various and sundry operations before the ultimate capping is complete, and these various operations are performed by various sub-combinations or groups of mechanical instrumentalities. For instance, the first operation is to feed the cans, and that is performed by means of the belt, arms swinging over the belt and the stop. There the function of that sub-combination ceases. After this is performed, a second operation takes place, which consists in the delivery of the cans, after they have left the belt, to the capping mechanism,

and that operation is performed by the feeder or carrier F, and its actuating mechanism. Still another operation, or sub-operation, (if we may be allowed to use such a term), consists in the releasing of the caps by the cans themselves, and that operation is performed by the trigger, the stop, connecting mechanism between the two, and the pulling of the trigger by the cans. Still another operation, or sub-operation, in the machine is the carrying of the caps, after being released, into the capping mechanism. The final operation is the capping mechanism, which is performed by the combination of the plungers, slides, and actuating mechanism.

Now it must be perfectly apparent that many, if not all, of these sub-operations can be performed in a continuous, as well as in an intermittent machine, and the proof of this is that they are actually performed in the Letson & Burpee machine, which is a continuous machine. Jensen has claimed those sub-combinations, and, therefore, he is entitled to them whether used in a continuous or an intermittent machine. He considered the best form of machine in which to use them was of the intermittent kind, and accordingly he described and illustrated such a machine in his patent; but there is nothing in these claims to indicate that the sub-com-

binations are limited to an intermittent machine. This is too palpable for discussion. If Jensen had claimed the machine as a whole, then there might be more force in the counsel's argument; but he has not done that in these claims. He has claimed the sub-combinations broadly without regard to the character of the machine, as a whole, in which they may be used. Consequently, it is an infringement to use them in a continuous machine, or in any other kind of a machine.

As sharply illustrating the distinction we are seeking to make, attention is called to claim 16 of the Jensen patent, which is a claim for the entire machine, including even the crimper, and that claim specifies the machine as intermittently operating. This shows that when Jensen claimed the entire machine, he limited it to an intermittent machine. But when he claimed the various sub-combinations, he did not limit them to any particular kind of a machine, because they could be used in many kinds of machines.

The second point urged by defendants' counsel in his brief, is, that the individual elements, or rather some of the individual elements in the defendants' machine, cannot be substituted for the corresponding elements in the Jensen machine. His precise point is that these elements cannot be bodily taken from the defend-

ants' machine and put into the Jensen machine, without alteration or modification, and he cites the definition of mechanical equivalents given in *Jensen Can Filling Machine Co. vs. Norton*, 67 Fed. Rep., 239.

We agree with the counsel that the definition quoted is accurate and correct, but the counsel appears to misunderstand it, for certainly he has not properly applied it. According to the definition, the devices in the alleged infringing structure are mechanical equivalents of the patented devices, when they "can be *adapted* to "perform the functions" of the patented devices, etc.

By this is meant that if the devices can be made to perform the functions of the patented devices with only such change or alteration as is within the knowledge of skilled mechanics, then equivalency exists. It is sometimes, though rarely the case, that the elements in one machine can be bodily removed therefrom and put into the patented machine without any change or alteration whatever. In such cases, there can be no doubt as to equivalency. But such cases are rare. In the great majority of cases which occur, it is not possible to remove certain elements from one machine and put them into another without some change, alteration, or modification, and the material question is whether such changes, alterations and modifications are within the

knowledge of a skilled mechanic. If they are, then the substituted devices are mechanical equivalents; if not, that is to say, if a skilled mechanic would not know how to make those changes, alterations and modifications, but the faculty of invention would be necessary therefor, then the substituted devices are not equivalents.

In the definition quoted the expression "can be *adapted* to perform the functions of those specified " devices for which they are employed as substitutes," is used. We understand that the word "adapted" is there used to express the idea which we have been endeavoring to set forth; for such, we assert, is the law. When the substituted devices *can be adapted* to perform the functions of those whose place they take, then they are mechanical equivalents.

Apply these views to the facts in hand. The counsel asserts that the cap-carrying belt of Letson & Burpee cannot be substituted for the cap-carrying chute in Jensen's machine. Probably it is true that his belt cannot be bodily taken from his machine and put in the place of the chute in the Jensen machine without any change or alteration; but it is perfectly apparent that this belt can be substituted for the chute in the Jensen machine when the alterations and modifications are

made to adapt it to its new sphere, and also that such alterations and modifications are clearly within the knowledge of a skilled mechanic. In the language of the definition, the belt "*can be adapted* to perform the "function of the chute."

The same argument applies to the other various elements. Of course, there are some elements in the Letson & Burpee machine, which cannot be bodily removed therefrom and substituted for the corresponding elements in the Jensen machine without alteration or modification, but it is equally true that such substitution can be made when the alterations and modifications are made, which are necessary to adapt them to their new sphere of action, and that such alterations and modifications are within the knowledge of skilled mechanics. It would subserve no purpose of utility to discuss each of the elements in question, for we fear that this brief is already too lengthy, and therefore we shall not go into further details. The broad proposition above stated will be sufficient to show our position in the matter.

The next point of alleged difference is that the Letson & Burpee machine is a faster machine than the Jensen. This point is scarcely worthy of serious consideration. The question to be considered is not whether the defendants' machine operates faster, caps more cans than



the Jensen machine; but whether the devices used operate in substantially the same way. It may be a better machine, in view of the fact that the defendants have had the benefit of eleven years' experience with the Jensen machine. It must be remembered that the Jensen machine was the first of its kind, that nothing preceded it, that he had nothing to aid him in designing it. Consequently, it is not surprising that eleven years afterward skilled mechanics can get up an improvement upon the original machine. It is usually the case with an infringer to laud his own machine to the sky, and to show that it is very superior to that of the patentee, whose ideas he has appropriated. But such argument cannot aid the court in solving this question of infringement. It is not a material matter of inquiry.

But one word more on this point. The learned counsel asserts that the Letson & Burpee machine "will head " twice as many cans as will the Jensen machine." In this statement he is in error, as will appear from the testimony in the case. His own client, Mr. Burpee, testified that he recommends as the proper speed for his own machine 120 cans per minute. In other words, in the normal operation of his machine 120 cans per minute will be capped. The testimony of Mr. Munn, superintendent of the Alaska Packers' Association, shows that the normal speed of the Jensen machine is 90 cans

per minute. Consequently, there is a difference between the two machines of about 25 per cent in favor of the Letson & Burpee machine, and the counsel is in error when he says that the Letson & Burpee machine will cap twice as many cans in a given time as will the Jensen.

As has already been remarked, we do not consider this a material matter, but advert to it merely for the purpose of accuracy and in justice to Mr. Jensen's machine. It is sufficient for our purpose that his machine does successfully cap filled cans at a rate of speed sufficient to make it highly profitable. If the defendants have devised a machine which will cap more cans in a given time and be more profitable, we congratulate them upon the achievement, but submit that they are not entitled, in working out that result, to encroach upon the patented right of Mr. Jensen.

It is further urged by counsel for defendant that the Jensen machine is not patented as a whole, but only as to certain specified parts, and from this he concludes that there is no claim in the patent covering a pioneer invention.

We fail to appreciate the reasoning of such logic, for there is no rule of law requiring an inventor to claim his whole machine in order to be placed in the category of pioneer inventors. Indeed, the very opposite would

appear to be the case, for the claim for the whole machine would necessarily include so many elements that a person might easily evade the same by omitting some one or more of said elements. The more elements there are in a combination the easier it is to evade the claim therefor. It is generally the case that there is some one vital feature in a machine which gives it its value and distinctly stamps it as something different from all others. In order to utilize this feature, however, it is necessary generally to make use of subsidiary mechanisms old in the art. If in such case the patentee claims the whole machine as an entirety, thereby including in the combination all the elements of the machine, he would obtain but little protection. If, however, he claims different parts of the machine separately, thereby forming combinations of a limited number of elements, he would be able to secure the necessary protection.

Such is the case at bar. Jensen designed the first automatic machine for heading filled cans, which machine embodies various successive steps or operations accomplished by separate and distinct combinations of elements. The first step in this composite machine consists in supplying the filled cans automatically and regularly preparatory to the heading operation. This

distinct and separate step is performed by the combination of the first claim, as we have already pointed out in this brief. It is a step separate and distinct from everything else, and if new, is patentable. That it is new is admitted. That it is a primary and pioneer operation is equally clear, because prior to Jensen no machine of any kind had been used for automatically heading filled cans, and consequently, no method of supplying cans to such a machine was known. Therefore, we assert, without fear of successful contradiction, that this initial step in the operation of the machine, covered by the combination of claim 1, is a primary and pioneer invention.

The second step in the operation of the machine consists in the removal of the unfilled cans from the point at which they have been deposited by the first step, and carrying them away by means of an automatic feeder and delivering them to the capping mechanism. This step is separate and distinct from the first one, and the same argument applies to this claim that we used in reference to the first claim.

The next step in the operation consists in the automatic feeding of the caps, whereby each can releases its own cap, and this feature is covered by claim 5. Concerning it there appears to be no serious dispute.

That the operation of this claim is pioneer in character is too plain to admit of a doubt.

The final step in the operation of the machine consists of the capping operation, covered by claims 9, 10 and 11. This is likewise a separate operation and is the final step in the process.

Thus we see that the machine is of a composite character, employing several distinct and independent operations, each of which is covered by distinct and independent claims. This method of claiming a pioneer invention is the most effective that can be conceived, and we can see no valid objection to it. Had the patentee attempted to claim all of these sub-operations in one big combination, he would not have secured the protection he is entitled to, because such combination might be evaded by the omission of one of its elements.

For instance, suppose the claim had been framed in language such as the following:

In a machine for automatically heading filled cans, the combination of a mechanism for supplying the cans in an upright position, a mechanism for transferring the cans to the capper, a mechanism for supplying the caps by the movement of the cans, a mechanism for capping the cans, and a mechanism for removing the cans after being capped.

Such a claim would be a claim for the entire machine; but it requires only small knowledge of patent law to see that such a claim could be easily evaded by any adroit mechanical pirate. In order to avoid such contingency the patentee has pursued the course of making a separate and distinct claim for each separate and distinct operation. That he had a right to do this admits not of a doubt. That it more effectually protects him is palpably apparent. We fail, therefore, to see any force in the argument of the learned counsel when he urges that Jensen's claims cannot be construed as primary and pioneer because they are not claims for the entire machine and are claims only for sub-combinations.

In conclusion we submit that we have made out a meritorious case, and that we are entitled to the relief asked for. This Jensen patent is one of unusual merit, and belongs to that class of patents which the courts delight to protect. It is unfortunately the case that a great many patents are for trivial and insignificant details not worthy of judicial protection, covering, as Mr. Justice Mathews expressed it in *Hollister vs. Benedict Manufacturing Co.*, "a mere shade of the shadow of an idea." Such patents tend to bring the patent system into disrepute, but patents covering basic ideas of origi-

nality and utility stand on a different footing, and the courts look upon them with liberality and favor. Such a patent is the one now before the court. It represents a basic idea, a fundamental principle. It has aided most materially to bring to a state of perfection one of the greatest industries on the Pacific Coast, or, for that matter, in the entire world. Its novelty is not denied; its utility is not questioned; its validity is not challenged. It certainly, in our judgment, fulfills to the letter that section of the constitution which provides for the issuance of patents "in order to promote the "progress of science and the useful arts."

We respectfully submit that all that portion of the decree denying relief as to claims 1, 3, and 11, should be reversed, and all that portion granting relief as to claims 5, 9, and 10 affirmed.

JOHN H. MILLER,  
For Alaska Packers Association.

